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THE
CULTURES OF PREHISTORIC EGYPT

BY

ELISE J. BAUMGARTEL
M.A., DR. PHIL. (KOENIGSBERG I. PR.)

Published on behalf of the
GRIFFITH INSTITUTE
ASHMOLEAN MUSEUM, OXFORD
by
GEOFFREY CUMBERLEGE
LONDON: OXFORD UNIVERSITY PRESS
1947

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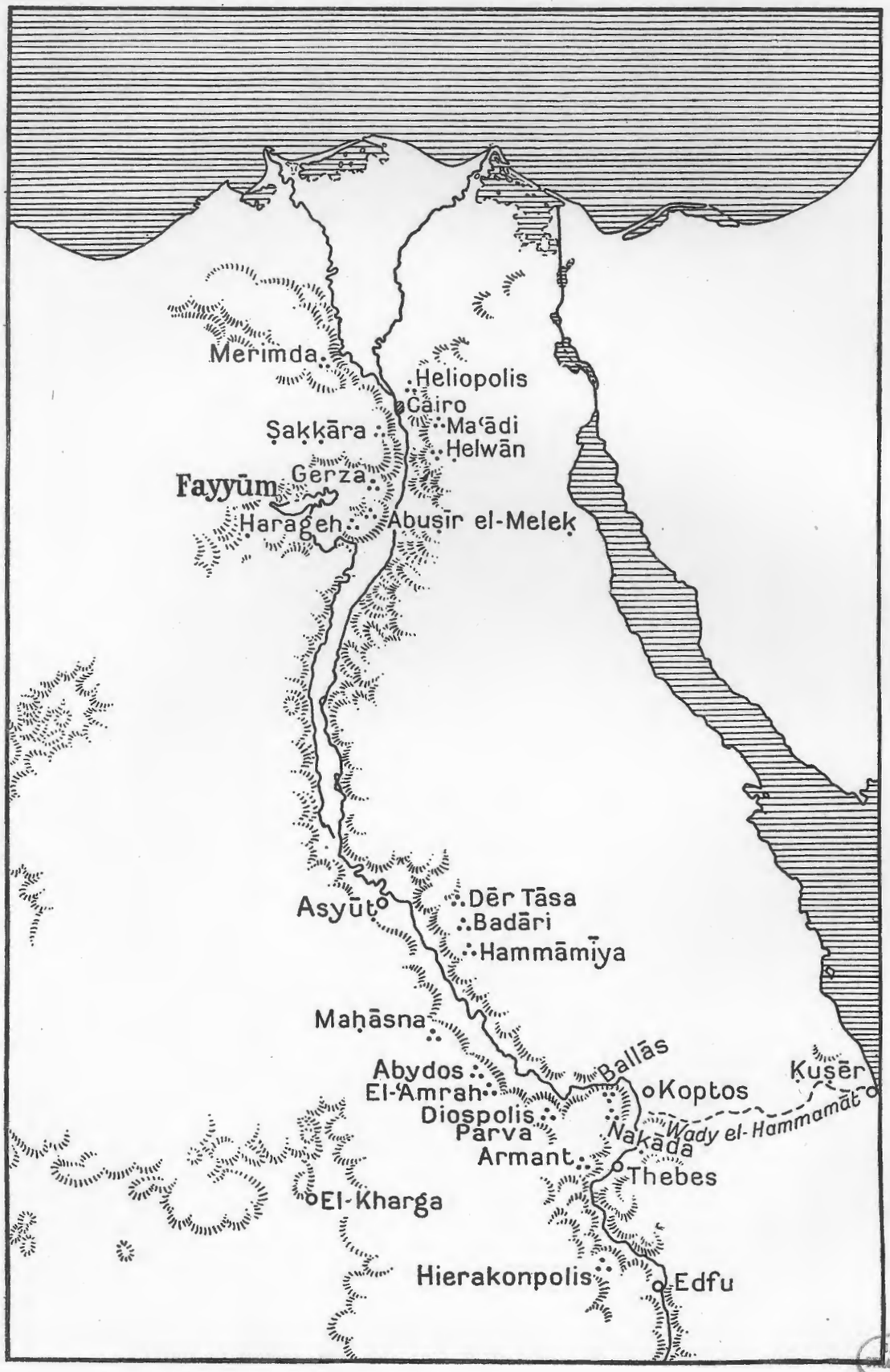
Merimda
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Cairo
Ma'ādi
Ṣakkāra
Ḥelwān
Fayyūm
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Abuṣīr el-Melek
Asyūṭ
Dēr Tāsa
Badāri
Hammāmīya
Maḥāsna
Abydos
El-'Amrah
Diospolis
Parva
Ballās
Koptos
Kuṣēr
Wady el-Hammamāt
Nakāda
Armant
Thebes
El-Kharga
Hierakonpolis
Edfu

Map of Egypt

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OXFORD UNIVERSITY PRESS
AMEN HOUSE, E.C. 4
LONDON EDINBURGH GLASGOW NEW YORK
TORONTO MELBOURNE CAPE TOWN BOMBAY
CALCUTTA MADRAS
GEOFFREY CUMBERLEGE
Publisher to the University

Printed in Great Britain
by T. and A. CONSTABLE LTD., Hopetoun Street,
Printers to the University of Edinburgh

CONTENTS

PAGE

PREFACE vii
LIST OF PLATES ix
LIST OF ILLUSTRATIONS IN THE TEXT x
ABBREVIATIONS USED IN REFERENCES xi

PART I: SOURCES OF INFORMATION WITHIN EGYPT

I. INTRODUCTION 1
II. NOMENCLATURE 1
III. WAS THE BIRTH-PLACE OF PHARAONIC EGYPTIAN CULTURE IN THE NILE DELTA? . 3
IV. WHERE DID EGYPTIAN CIVILIZATION ORIGINATE? 18
V. THE EARLIEST PHASES OF EGYPTIAN CULTURE:
A.—*The Tāsian* 20
B.—*The Badārian* 21
C.—*Naḳāda I* 24
D.—*Naḳāda II* 38
VI. CONCLUSIONS 49

PART II: FOREIGN ORIGINS AND CONNECTIONS

I. INTRODUCTION 52
II. GENERAL SURVEY OF THE POTTERY 52
III. THE EARLY PAINTED POTTERY 54
IV. THE LATER PAINTED POTTERY 71
V. THE INCISED POTTERY 89
VI. SOME ADDITIONAL REMARKS ON POTTERY 100
VII. THE STONE VASES 102

INDEXES:

I. GENERAL 120
II. EGYPTIAN WORDS 122

PREFACE

I WISH first to express my thanks for the kind help which has enabled me to write this paper at all, and to see it printed in spite of much adversity and misfortune. My foremost thanks and gratitude go to Professor Sir John L. Myres. He not only induced me in 1934 to stay in England, but from the very beginning made it possible for me to work. His understanding and never-failing helpfulness have tided me over many a difficulty; his interest in my work and his inspiring suggestions have given me much courage to continue my research and have shown me new points of view from which to tackle many a thorny problem.

I began my work on the special problems of Egyptian Prehistory with which this paper is concerned as much as fifteen years ago, when I began to collect knowledge on the Egyptian flint industry. But only in 1936 did the work begin in earnest. I was then offered a position in the Egyptological Department of University College, London. Professor Glanville and the late Sir Robert Mond (the latter, among many acts of generous help, paying me a salary) enabled me to work there and to them both I owe a great debt of gratitude. I worked in the collection brought together mainly by Sir Flinders Petrie, and only then did I begin to understand what Egyptian Prehistory is, and how little I had known of it previously. I had worked through the prehistoric material and rearranged it in new cases, prepared a card-index, and settled down to write the first volume of the Catalogue of the University College Collection, which was to contain the fruits of my researches in the Department, when war broke out in the autumn of 1939. We packed the treasures of our collection as best we could, and University College went into exile. Our Department was closed down altogether. Unfortunately some of the Egyptian antiquities were damaged, in spite of our efforts, by flooding consequent on the partial destruction of University College in the London "blitz." I went to Oxford and found hospitality in Somerville College. I am glad to have an opportunity to thank Miss Darbishire, then the Principal, and the members of the Senior Common Room there. It was again Sir John Myres whose help decided the issue. He brought me into contact with the Griffith Institute in the University of Oxford. I had meanwhile made up my mind to publish the results of my researches at University College in a small article—I had to renounce the publication of the material, for that offered insurmountable difficulties in time of war. Here the Griffith Institute stepped in and made me a grant. I was able to enlarge my paper and to include at least some of the most important antiquities which had not been published before, or had been published inadequately. I am glad that I can thus publish the fruits of my research, though in a somewhat incomplete form. I hope that one day in better times I or somebody else will publish the unique material at University College, London, perhaps supplemented by the antiquities preserved in

the Ashmolean Museum, Oxford. Only then, I think, can a more definite idea be formed of the intricate problems of Egyptian Prehistory, of which I hope I have given some inkling in this paper.

I wish to thank Professor Battiscombe Gunn for the help he has given me in clearing up my own ideas in discussions with him, and for the trouble he has taken in revising my English.

My thanks are also due to a number of authors whose works I have read with much profit but for one reason or another have not been able to quote.

The reproductions in the figures are taken from many publications, where they are given on various scales; in some cases the scales are not stated and it has not been possible to ascertain them from the objects themselves. For these reasons I have given no scales in my figures. The sizes of the objects are mentioned in the text wherever possible.

The spellings of Arabic names, and the abbreviations used, are those recommended by Professor Gunn.

Some time has elapsed since this book was written. Since then research has not stood still, and I am glad to say that none of the chief theses advanced in the following pages have been disproved; many have been confirmed by further work.

I should perhaps not have been quite so positive on the connection between Egypt and Palestine as shown by the wavy-handled pots had I seen T. J. Arne's paper "Painted Pottery from Honan" in *Palaeontologia Sinica*, series D, 1, 2, for the wavy handle occurs there also. The whole problem should be examined afresh, taking this far-eastern pottery into account.

On the other hand, I should have been less timid in putting forward the hypothesis of Egypt's earliest connection with Asia *via* the straits of Aden had I known that the sea-currents carry a boat from the Persian Gulf to the African coast during six months of the year.

Dr. S. A. Huzayyin's book, *The Place of Egypt in Prehistory*, came into my hands too late for me to make use of it in this volume.

ELISE J. BAUMGARTEL.

LONDON, *January* 1946.

LIST OF PLATES

1. Map of Egypt (*frontispiece*).

(*Plates* 2-13 *at end.*)

2. Map of Egypt and the countries of the Near East.

3. **1-4.** Vase with fertility-goddess: Naḳāda, tb. 1449. **5, 6.** Vase with Hathor in the attitude of a fertility-goddess: Ashmolean Museum, provenance unknown.

4. **1.** Spear-head: Merimda. After *Anz. Wien*, 3 (1932), pl. 6, b. **2.** Spear-head: Naḳāda, tb. 414. **3.** Ground and flaked axe: Naḳāda, town. **4-6.** Arrow-heads: Naḳāda, town. **7.** Sickle-stone or saw: Naḳāda, town. **8.** Sickle-stone: Koptos. **9.** Arrow-heads: Koptos. **10.** Hoe-shaped bifacial: Naḳāda, town.

5. **1.** Burin: Naḳāda, tb. 1846. **2.** Resharpened, flaked axe: Naḳāda, town. **3, 4.** Chisel and keeled scraper on blades: Naḳāda, town. **5.** Flint blade with remains of crust: Naḳāda, tb. 1208. **6.** Leaf-shaped point, bifacial: Naḳāda, town. **7.** Red agate lunates: Naḳāda, tb. 836. **8, 9.** Bone harpoons: Naḳāda, tb. 1215 and town. **10.** Copper harpoon: Naḳāda, tb. 1808. **11, 12.** Alabaster and ivory figurines: Naḳāda, tb. 1329.

6. **1.** Sherd of black-topped pot with burnished pattern: Naḳāda, town. **2, 3.** Female figure, buff clay with remains of red paint: Naḳāda, tb. 1611. **4, 5.** Pair of ivory tusks, one with inlaid shell eyes, hollow, one with incised lines round top, solid: Naḳāda, tb. 226. **6.** Incised pot, red engobe, herring-bone pattern: Naḳāda, tb. 1436. **7.** Polished red incised pot: Naḳāda, tb. 1401. **8.** Polished red pot with incised hippopotamus: Naḳāda, tb. 1416. **9.** Copper pin: Naḳāda, town. **10.** Cylinder-seal: Naḳāda, tb. 1863. After *Preh. Eg.*, pl. 9, 56. **11.** Pot painted red in the style of the white cross-lined ware: Naḳāda, tb. 273.

7. **1-3.** Disc-shaped mace(?)-heads: Naḳāda, tbs. 234, 1417, 1443. **4.** Sherd with button foot: Naḳāda, town. **5.** Cylindrical alabaster vase: Naḳāda, tb. 1661: **6.** Decorated vase: Naḳāda, tb. 409. **7.** Basalt vase: Naḳāda, tb. 1676. **8.** Ivory vase: Naḳāda, tb. 1412. **9.** Bird-shaped stone vase: Naḳāda, tb. 89.

8. **1.** Rough pot decorated with finger-tip impressions: Naḳāda, tb. 191. **2.** Black-topped vase, foot painted white: Naḳāda, tb. 1465. **3.** White cross-lined pot with cross-hatched squares: Naḳāda, tb. 1497. **4, 5.** White cross-lined vase with river between mountain motif and animals: Naḳāda, tb. 1644.

9. **1.** Ivory pin in form of serpent: Naḳāda, tb. 1654. **2.** White cross-lined pot: Naḳāda, tb. 1443. **3, 4.** Decorated pot: Naḳāda, tb. 173.

10. **1, 2.** Decorated pot with snakes and harpooned crocodile: Naḳāda, tb. 193. **3-5.** Fragments of decorated pot with dancing demons: Naḳāda, tb. 60.

11. **1-3.** Decorated vase with dancing women, tree, ships, and animals: Naḳāda, tb. 454.

12. **1.** Bowl decorated with red streaks: Naḳāda, tb. 1103. **2.** Rippled bowl: Naḳāda, tb. 31. **3.** Bowl decorated with red streaks outside and inside: Naḳāda, tb. 114. **4.** Pot with incised necklace with "loose" end: Naḳāda, tb. 1361. **5.** Pot-stand, boat-shaped; prow with ram's head, ram's legs in relief at the sides: Naḳāda, tb. 115.

13. **1.** Basalt vase with conical foot and lug-handles: Naḳāda, tb. 1503. **2.** Hard stone vase with conical foot: Warka, stratum IIIa of the Ziggurat. After *Kleinfunde*, pl. 21. **3.** Basalt vase with conical foot: Hierakonpolis, prehistoric cemetery. After *Hierakonpolis*, II, pl. 64. **4.** Alabaster beaker: Naḳāda, tb. 231. **5.** Stone double vase: Hierakonpolis, prehistoric cemetery. After *Hierakonpolis*, II, pl. 64. **6.** Alabaster (?) beaker: Sialk III. After *Sialk*, pl. 23, 7.

LIST OF ILLUSTRATIONS IN THE TEXT

		PAGE
1.	Z-sign and harpoons	12
2.	Palette with Z-sign and harpoon	12
3.	Multiple vase with fertility-goddess	31
4.	Water motif	55
5.	Alternating triangles motif	55
6.	Superposed triangles motif	56
7.	Triangles hatched and cross-hatched, hills, and river between mountains motifs	57
8.	Squares and diamonds	58
9.	Two pots with similar motifs from El-'Amrah and Arpakhīya	59
10.	Bull drinking from water-lines	60
11.	Upright water-lines in Egypt	61
12.	Water-lines as pot-marks, Egypt	62
13.	Archers from Elam and Egypt	64
14.	Ritual dance, Egypt	64
15.	Water and pond motif	65
16.	Cross with equal arms motif	66
17.	Net pattern	68
18.	Vase shapes, First Painted Pottery Period	69
19.	Stylized animals, Western Asia	70
20.	Egyptian asymmetric patterns	70
21.	Sea-going ship of Naḳāda I	71
22.	Birds and goats	72
23.	Z-sign and "epsilon"-sign	72
24.	Metope and net patterns	73
25.	Pentagram and double axe motif	74
26.	Spirals	75
27.	Trees and birds	76
28.	Rows of triangles and animals in metopes	77
29.	Goats and herdsman	78
30.	Partition into three, and dissolution of patterns	79
31.	Figures in file	80
32.	Serpents	83
33.	Serpents or water-lines?	84
34.	Shapes in clay and stone, Egypt, Second Painted Pottery Period	87
35.	Pottery shapes, Egypt and Jemdet Naṣr	89
36.	Pottery shapes, Egypt and Western Asia, Second Period	90
37.	Spouted vases, Egypt and Western Asia, Second Period	92
38.	Bell and high-handled pots, Egypt and Western Asia, Second Period	94
39.	Incised patterns, Egypt and Western Asia, Second Period	96
40.	Finger-tip and nail incisions, Egypt and Western Asia, Second Period	97
41.	More incised patterns, Egypt	98
42.	Patterns of black-incised and Badārian wares, Egypt	101
43.	Stone bowls, Egypt and Western Asia	104
44.	Footed vessels, Egypt and Western Asia	105
45.	Footed vessels, Egypt and Western Asia	107
46.	Footed stone beakers, Egypt and Western Asia	108
47.	Footed and lug-handled stone vases, Egypt	109
48.	Stone cups, Egypt and Western Asia	113
49.	Barrel-shaped stone vases, Egypt and Western Asia	114
50	Stone dishes and mortars, Egypt and Western Asia	118

ABBREVIATIONS USED IN REFERENCES

Abbreviation	*Full Title*
Abh. Berlin, Leipzig, München	*Abhandlungen der Preussischen, Sächsischen, Bayerischen Akademie der Wissenschaften.*
Al-'Ubaid	Hall, H. R., and Woolley, C. L., *Ur Excavations*, 1: *Al-'Ubaid* (1927).
Anc. Eg.	*Ancient Egypt* (periodical).
Ann. Arch. Anthr.	*Annals of Archaeology and Anthropology* (Liverpool).
Ann. Serv.	*Annales du Service des Antiquités de l'Égypte.*
Anz. Wien	*Anzeiger der Akademie der Wissenschaften in Wien, philos.-hist. Klasse.*
Bad. Civ.	Brunton, G., and Caton-Thompson, G., *The Badarian Civilisation, and Predynastic Remains near Badari* (1928).
Cem. Arm.	Mond, R., and Myers, O. H., *Cemeteries of Armant I* (1937).
Corpus	Petrie, W. M. F., *Corpus of Prehistoric Pottery and Palettes* (cover is lettered *Prehistoric Egypt Corpus;* 1921).
Délég.	Ministère de l'Instruction Publique et des Beaux-Arts: *Délégation en Perse: Mémoires.*
Die Altertümer	Staatliche Museen zu Berlin. Mitteilungen aus der ägyptischen Sammlung, Bd. 4, 5: Scharff, A., *Die Altertümer der Vor- und Frühzeit Aegyptens*, 1. Teil (1931), 2. Teil (1929).
Diosp. Pa.	Petrie, W. M. F., *Diospolis Parva: The Cemeteries of Abadiyeh and Hu* (1901).
Gawra	Publications of the American Schools of Oriental Research. Speiser, E. A., *Excavations at Tepe Gawra*, 1 (1935).
Iran in the A.E.	Herzfeld, E. E., *Iran in the Ancient East* (1941).
JEA	*Journal of Egyptian Archaeology.*
Jemdet Nasr	Field Museum of Natural History. Anthropology Memoirs, Vol. 1, No. 3: Mackay, E., *Report on Excavations at Jemdet Nasr, Iraq* (1931).
Kleinfunde	Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka, Bd. 1: Heinrich, E., *Kleinfunde aus den archaischen Tempelschichten in Uruk* (1936).
Mém. Miss. arch. Perse	*Mémoires de la Mission archéologique de Perse* (continuation of *Délég.*).
Mostag.	Brunton, G., *Mostagedda and the Tasian Culture* (1937).
Naq. Bal.	Petrie, W. M. F., and Quibell, J. E., *Naqada and Ballas* (1896).
Nuzi	Harvard-Radcliffe Fine Arts Series: Starr, R. F. S., *Nuzi*, 1 (1939), II (1937).
Preh. Assyria	Mallowan, M. E. L., and Rose, J. C., *Prehistoric Assyria: The Excavations at Tall Arpachiyah* (1933).
Preh. Eg.	Petrie, W. M. F., *Prehistoric Egypt illustrated by over* 1000 *Objects in University College, London* (1920).
Royal Tombs	Petrie, W. M. F., *The Royal Tombs of the First Dynasty:* Part I (1900); *The Royal Tombs of the Earliest Dynasties:* Part II (1901).
Sialk	Musée du Louvre. Département des antiquités orientales. Série archéologique. Tome IV: Ghirshman, R., *Fouilles de Sialk, près de Kashan*, 1 (1938).
Tépé-Giyan	Musée du Louvre. Département des antiquités orientales. Série archéologique. Tome III: Contenau, G., and Ghirshman, R., *Fouilles du Tépé-Giyan* (1935).
Warka	I-V: *Erster* (and so on) *vorläufiger Bericht über die von der Notgemeinschaft der deutschen Wissenschaft in Uruk(-Warka) unternommenen Ausgrabungen* (1930-1934). VI-X: *Sechster* (and so on) *vorläufiger Bericht über die von der deutschen Forschungsgemeinschaft in Uruk-Warka unternommenen Ausgrabungen* (1935-1939).
ZÄS	*Zeitschrift für Ägyptische Sprache und Altertumskunde.*

PART I: SOURCES OF INFORMATION WITHIN EGYPT

I. Introduction

This paper contains some of the results of the work I was privileged to carry out at University College, London, during the years 1936–9. As a Research Assistant in the Department of Egyptology there I had a unique opportunity of studying the many treasures of the Flinders Petrie Collection, which is in the Department's keeping. Among this material the remains of prehistoric Egypt constitute a collection such as no other Museum possesses for richness both in material from excavations—mostly Sir Flinders' own—and in objects bought in Egypt at a time when few people realized their value. A small number of objects from the excavations at Merimda-Beni-Salāma have recently been added to the archaeological material there, to keep it up to date.

Though all Sir Flinders' excavations have formed the subject of memoirs, much of the material has remained unknown. This is particularly true of the earliest excavations, at Koptos, Naḳāda and Ballāṣ, and Diospolis Parva, the publications of which give hardly more than an inkling of the real importance of these sites. It was my intention to re-edit this material in the form of a catalogue, and thus to make it available to all those interested. The war has prevented this. But fortunately the card-index of those objects which came from the excavations in question is finished, and has given me the possibility of putting on record the results of my work so far completed. It is unfortunately impossible to publish much of the material itself, and this explains some of the shortcomings of this paper; yet I think it better to publish what I can, since under present circumstances it is impossible to say when work can be resumed.

Besides the material mentioned above, University College, London, possesses a representative collection from Badāri, including the greater part of the objects from Miss Caton-Thompson's Hammāmīya excavation, and all the excavated material published in *The Desert Fayum*, and also much of the surface finds. All this has been used for these studies. It soon became obvious that Naḳāda was the most important excavation ever made in a prehistoric site in Egypt, and that for two reasons. First, it must have been a town far superior in political and cultural importance to any other of its period that has been excavated; it was probably the capital of Upper Egypt from a very early date, as the richness and size of its cemeteries indicate. Secondly, the material from the excavation has not been dispersed among dozens of museums all over the globe. Owing to Petrie's "New Race" theory the material was not appreciated when it came to Europe, and by far the greater part remained in the collection of Sir Flinders himself, and at the Ashmolean Museum, Oxford, to which a representative collection was given. I have to thank the Keeper of the Ashmolean, Mr. E. T. Leeds, for allowing me to make full use of the collection in his charge.

II. Nomenclature

Before I begin to discuss the real object of this paper it seems necessary to say something about the nomenclature adopted here for the various periods. Several different groups of terms

have been advanced during recent years, and none of them has been adopted generally. I shall follow the one introduced by Professor Scharff, for that seems to me the most practical. Thus, the earliest culture of Egypt known at present will be called, though with some hesitation, the Tāsian, which in turn is followed by the Badārian. The next stage will be called Naḳāda I, and the civilization that follows in chronological order Naḳāda II. I shall not include a third period possibly separating Naḳāda II from the First Dynasty, since nothing has been discovered to confirm Petrie's original assumption of a new culture penetrating Egypt at that time.

More difficult is a decision about the sequence dating. It will be given throughout here, where it is stated in the various publications. That does not mean that I attach very great significance to it in every case. Sequence dating is a brilliant system, but it has not been kept up to date, and it ought to be completely overhauled, with very different estimates in certain cases. Yet it has given the right result from the start, and the partition of the Naḳāda material into two different periods, the earlier from S.D. 30 to 38, the other from S.D. 38 to 76, still holds good. Probably, however, the first extended over a much longer period than the second, for the first is more or less static, whilst the impetus which brings about the brilliant development of historic Egyptian culture, and puts it at the head of all its contemporaries, comes in with Naḳāda II. And wherever we can observe the phenomenon of a culture developing into one of the great ages of mankind, it takes an astonishingly short time to reach its culmination. Therefore the sequence dating of Naḳāda II is probably too closely subdivided as compared with the earlier period.

As the nomenclature of prehistoric Egypt has been derived from excavations in Upper Egypt, something must be said on the question how the finds from the excavations of Lower Egypt can be fitted into the system. I must state at the outset that I disagree with the theory that has been put forward and widely accepted to the effect that the culture of Naḳāda II came from the Delta, that it existed there much earlier and on a far higher level than anything known in the South, and indeed that the real Egyptian culture was wholly derived from the Delta. An attempt to sketch a coherent Egyptian prehistory, however, will only be made at the end of this paper, when the facts have been given as fully as possible. Here I will merely state that I know no direct evidence, or reasonable indirect demonstration, that there was any prehistoric culture worth mentioning in the Delta older than the Naḳāda II culture of Upper Egypt, or independent of the civilizations of the South. Upper Egypt in prehistoric times was superior to anything we have from the Delta.

It has frequently been stated that the early culture of the Delta is wholly submerged under the Nile mud, and so is lost to us. On this assumption—for it is no more—the theory of the prehistoric and early historic cultural supremacy of the Delta—the Delta hypothesis, as it may be called—has been established, and by means of it any argument against this hypothesis, based on the lack of material evidence for it, has been cut short. Those who hold this theory seem to consider that although the *argumentum ex silentio* is not admissible, it *is*, on the other hand, admissible to claim an early centre of high culture in the Delta without the support of material evidence, because this may have perished or may for the present be concealed from us. Thus the *argumentum ex silentio*, though properly rejected in its negative form (i.e. that because no material has been discovered, none exists), is indeed employed in its positive form (i.e. that although no material has been discovered it nevertheless exists), and this is an even more dangerous

fallacy. But it is not even true any longer that we know nothing about the prehistoric culture of the Delta.

The investigation will begin with a survey of the physiographical evidence.

III. Was the Birth-place of Pharaonic Egyptian Culture in the Nile Delta?

If we look at the map of Egypt given on pl. I we find that the settlements of the Tāsians, Badārians, and Naḳāda I people were situated not on the banks of the Nile but on the low spurs of the desert. Not before Naḳāda II did the first settlers venture down into the valley itself. This goes far to show that even Upper Egypt was not fit for the habitation of men and cattle before the time of Naḳāda II. That the desiccation[1] of the Nile valley took place at a comparatively late time has also been deduced by O. Myers, on other evidence. Discussing the presence of tree-trunks in his excavations at Armant in a position where there is desert today, he says: "From this it would seem possible to deduce that desiccation took place between the E.P. III (Badarian) and historic periods, there still being sufficient moisture on the Low Desert to support trees some time considerably subsequent to the E.P. III."[2] If the Upper Nile valley in prehistoric times was still too damp to be inhabitable, how much more so must the Delta have been! During the Old Kingdom it was still a place to which noblemen went for big game hunting, and whither they sent their herds of big cattle for pasture, as we see from the tomb-reliefs of that time. Scenes of cattle coming up from the wild swamps of the Delta accompanied by their rough-looking herdsmen are common.[3] There is no sign that the Egyptians knew of any superior culture there. Even in later times tradition in Egypt preserves something of this aspect. Herodotus says (II, 4.99) that the whole of Egypt north of Lake Moeris had been swamps, and that Menes by building dykes made the part around Memphis inhabitable. Even if one does not believe in the accuracy of Herodotus' sources, his statement shows that in his time nothing was known in Egypt of an early culture of the Delta, and this speaks against the hypothesis of a prehistoric state in the Delta from which all Egyptian culture derived, and which united the country into one kingdom long before Menes, whom the Egyptians credited with this achievement.

The reasons which have been advanced to demonstrate the Delta hypothesis will now be discussed, apart from the assumption that the remnants of it are utterly lost and covered by swamps.

Two main lines of argument have been set up. One of these is based upon the interpretation of Egyptian texts of different ages, especially the Pyramid Texts, and in its most extravagant form it will be found in K. Sethe's *Urgeschichte u. älteste Religion d. Ägypter* (1930). The other is drawn from the archaeological field, and is also largely based on conjecture. The hypothesis has been accepted by scholars all over the world, with very few exceptions.

The argument from the texts is that, in the first place, the Pyramid Texts show that the school of religion in Egypt which propagated the worship of the sun had become the dominant one in early times. We know that in later times Heliopolis was the centre of the solar cult.

[1] I am talking here about desiccation in a climatic sense.

[2] *Cem. Arm.*, p. 8.

[3] L. Klebs, *Reliefs d. Alten Reichs*, p. 60. Cf. H. Kees, *Ägypten* (*Kulturgesch. d. Alten Orients*), p. 8: "Nach den natürlichen Wasserverhältnissen waren noch in geschichtlicher Zeit grosse Teile des inneren und des nördlichen Deltas während der Überschwemmung bis in den Winter unbewohnbar, also für eine ackerbautreibende Bevölkerung schlechterdings unbrauchbar."

(The Egyptian name of the city, namely *'Iwnw*, means "pillar," and has nothing to do with the sun.)[1] From this it is inferred that the town from which this religion took its origin must have been Heliopolis. It must have been of considerable importance, otherwise it would not have been in a position to impose its own theology upon the Pharaoh and the whole of the country, and this importance must have been a political one. Since we never find Heliopolis playing a rôle of any political importance in the historic period, it is said that this could only have taken place in prehistoric times.

But the Pyramid Texts are not only concerned with the solar cult; they also contain texts in which Osiris plays a part. His position among the gods is not yet ascertained. In many of the texts the dead king is identified with him, as is customary in later times; in others there are incantations to prevent Osiris from doing mischief to the king.[2] This rôle of Osiris in the Pyramid Texts has always been difficult to explain, for he is the ruler of the netherworld, and it seems to be in irreconcilable contradiction with the belief in a solar hereafter. Some have taken him to be a late intruder amongst the gods of Egypt, coming from somewhere in the East, the home of the story of the dying and resurrected god from time immemorial. Osiris having acquired general popularity, even the high priests of Heliopolis could not exclude him totally from their system of theology, though they were not wholly reconciled to him, as the texts which ascribe to him evil intentions against the dead king go far to show. This view is based on the fact that nothing is known in Egypt of Osiris prior to the Fifth Dynasty.[3] He is altogether absent from the monuments of archaic times and the tombstones of the earlier Old Kingdom. Among the many thousands of objects that have been found in graves, temples, and towns of those periods there is not a single one mentioning Osiris.

Sethe, however, is of a totally different opinion. He takes Osiris to have been a real king of Egypt, who reigned over a united Egypt long before Menes. His home was at Busiris (the old *Ḏdw*) in the Delta, and when he had conquered the South he made Heliopolis his capital. The tradition that he was either drowned in the Nile or met with a violent end at the hands of his adversary Sēth is taken by Sethe to be historical truth. Later on Osiris was deified at Heliopolis. The main reason for this fantastic story is Sethe's wish to construct an early kingdom with Heliopolis as its capital, in order to explain the position of Heliopolis as a centre of sun-worship and the metropolis of learning. His argument is based on no facts, but on the following conjectures. The name of Osiris, which means "the seat of the eye," is a kind of pet name, translatable perhaps by "joy of the eye" (*Augenfreude*). Such a name, Sethe thinks, is not fit for a god, but only for a human being. On this slender foundation he builds up his far-reaching hypothesis. But Sethe has another reason for his view that Osiris was a real human king: "his whole appearance (purely human with sceptre and crown). . . . Everywhere the kingship of Osiris stands in the first place, but he is thought of as dead."[4] Now Sethe himself has to acknowledge that Osiris took the insignia of kingship from an older god *ꜥnḏtj*, who was venerated in Busiris before him. Thus he was not a king from the beginning. Nor does Sethe's theory explain the close analogies between his myth and those of the dying and resurrected gods of Syria and Mesopotamia.

[1] G. A. Wainwright, *The Sky Religion in Egypt*, pp. 97, 106 f. [2] *Pyramid Texts*, §§ 350*a*, 1266-7.
[3] A. Rusch, *Die Stellung d. Osiris im theologischen System v. Heliopolis* (*Der alte Orient*, Bd. 24, Heft 1), p. 11.
[4] Sethe, *op. cit.*, p. 79.

When we now examine Sethe's reasons for assuming a prehistoric kingdom of Heliopolis we find that they are as untenable as his reasons for Osiris having been a real king of Egypt. In the first place, Sethe tells us that the rôle Heliopolis must have played in prehistoric times "is perhaps most clearly shown by its being always named even during the latest periods of Egyptian history with the two great capitals of historic times, Memphis, the capital of the Old Kingdom, and Thebes, that of the New Kingdom, on an equal footing, as though the three together formed a sort of triad. The same holds good for the great gods of the three cities: Rēꜥ-Ḥarakhte, Ptaḥ and Amūn, who in the end are identified with each other. As during historic times Heliopolis never played any rôle but that of a city sanctified particularly by her past, the home of old spiritual and religious traditions like Rome, Jerusalem, and Mecca in more recent times, it can have acquired this dominating position only in prehistoric times, in the period of its sovereignty over the whole of the country, just like Rome, Jerusalem, and Mecca."[1]

Sethe's second argument is the introduction of the Sothis-calendar. The theory is that it can only have been introduced into Egypt during one of the four-year periods in which its seasons really coincided with those of the solar year, and this happened only every 1460 years. The first date to fall into a reasonable margin of time was thought to be 4240 B.C. This year was pronounced by Eduard Meyer to be the earliest established date in history.[2] As it was thought impossible that anything short of a complete change in government could carry out so sweeping a measure as the introduction of a new calendar, Menes was made responsible for this revolutionary innovation. But this early date for Menes fitted in so badly with the known history of the Near East that Meyer was obliged to abandon it. Sethe was therefore free to include the introduction of the calendar amongst the achievements of his kingdom of Heliopolis. But he was by no means the only one to uphold such a date for an event that presumes a considerable knowledge of astronomy and arithmetic at a period when writing was not yet invented. L. Borchardt, in one of his last works dealing with Egyptian chronology, strongly supported the early date,[3] and attacked A. Scharff, who had tried to get rid of this fantastic supposition by shifting the introduction of the calendar one Sothis period later, namely to 2776 B.C.

Fortunately, O. Neugebauer has in recent articles[4] disposed of the introduction of an astronomical calendar and the existence of a school of learned astronomers at Heliopolis in prehistoric times. The Sothis period, he maintains, did not then exist at all. The year of 365 days was originally a Nile year, and had nothing to do with astronomy. It was counted from one inundation to another. It was divided into the three natural seasons of Egypt: inundation, sowing, and harvest, which have no counterpart in the sky. Only when the New Year's Day of this year became glaringly divergent from the beginning of the inundation was something else sought for to give a more fixed starting-point. As the beginning of the inundation was approximately coincident with the heliacal rising of Sothis, this was taken to mark its arrival. There is one thing, however, that Neugebauer takes over from Sethe, namely that even this

[1] Sethe, *op. cit.*, p. 89 f. At no time was Mecca the political capital of Islam or Arabia, though it is often named together with Medina; it was a religious capital from the beginning of Islam till modern times. See D. S. Margoliouth, *Mohammed and the Rise of Islam*, p. 394. [2] E. Meyer, *Gesch. Alt.*, I (1913), p. 29.
[3] *Die Mittel z. zeitlichen Festlegung v. Punkten d. ägypt. Geschichte u. ihre Anwendung* (Cairo, 1935), p. 33.
[4] *Die Bedeutungslosigkeit d. "Sothisperiode" f. d. älteste ägypt. Chronologie*, in *Acta Orientalia* 17, pp. 169 ff.; *La Période Sothiaque*, in *Chronique d'Égypte* 14 (1939), pp. 258 ff.

Nile calendar must have been introduced at Heliopolis. He quotes *Urgeschichte*, p. 90, where Sethe says: "Of the institutions in the life of the historical Egyptians which evidently originate in the Heliopolitan period the Nilometer is to be quoted in the first place." He then goes on to show that the Nilometer, which in much later times was in a suburb of Heliopolis, was called "The House of the Nile at On (*Iwnw*)." This in turn is taken by Neugebauer to mean that in prehistoric times only one Nilometer existed in all Egypt, and that it was at Heliopolis. I am afraid I cannot follow this deduction. There is not the slightest evidence that at any time only one Nilometer was used—quite the contrary [1]—nor do we know that it was at On in prehistoric times, even if On existed at that period. This brings us to a discussion of Sethe's first proposition. What do we know of Heliopolis and its learned priests in the prehistoric period and in the Old Kingdom? As to prehistoric times the answer is a very simple one. We have no evidence whatsoever of the existence of Heliopolis at so early a date. Excavations there were carried out first by Schiaparelli and later by Petrie. Schiaparelli never published his, but R. Weill was allowed to make a short statement about a temple of Djoser which Schiaparelli claimed to have found, and he illustrated it with fragments of reliefs from that temple.[2] Petrie showed that no temple of the Third Dynasty had been excavated by Schiaparelli, but that the fragments found by him must have come from the rubbish which fills the huge brick wall which encircled town and sanctuary.[3] As Petrie himself found in it a fragment of a relief probably of the Fifth Dynasty the wall cannot be older than this. The reliefs found by Schiaparelli, however, are of the Third. They give the Horus-name of King Djoser, *Nṯry-r-ḫt*. Weill publishes twelve fragments, six of which belong to one set of panels. In the right-hand corner of each of them a god was seated and in front of him was written a speech with which he addresses the king, whose huge figure seems to have been seated opposite. Of this figure of the king only the feet are preserved; behind them are two tiny figures who, as their titles show, are the wife and the daughter (?) of the king. Remains of three figures of gods are preserved. One of them is Sēth, clearly characterized by his ideogram behind his head. The names of the two others are destroyed; above the one a *b* remains, from which Sethe would restore *Geb*, and above the other the lower part of a sign which Weill, probably wrongly, reads as the handle of the *nṯr* sign, and Sethe as the stem of the feather of *Šw*. The words which the gods address to the king, and which are more or less destroyed, were identical. Sethe has included these speeches in his *Urkunden d. Alten Reiches*, p. 154; he calls them "speeches of the divine Ennead." [4] Of the six remaining fragments, two show the king's name and some of his titles, together with wishes for good fortune; one is the already mentioned fragment of the king's image facing the gods, another repeats the names of the king's wife, and also has the remains of two standards, bearing respectively the feet of a standing jackal and the fetish generally known as the "piece of meat." On one fragment are the remains of two rectangular enclosures which contained place-names, and over each of them is what might be a nome-sign, one a falcon

[1] Over a dozen Nilometers, of uncertain age, however, are known; cf. Borchardt, *Nilmesser u. Nilstandsmarken* (*Abh. Berlin*), 1906.

[2] R. Weill, *Un Temple de Noutirkha-Zosir à Heliopolis*, in *Sphinx* 15, pp. 9 ff.

[3] Petrie and Mackay, *Heliopolis, Kafr Ammar*, and *Shurafa*, p. 4.

[4] Sethe's opinion about these inscriptions is elaborated in his *Dramatische Texte*, 1, p. 79. There he goes so far as to maintain that they prove the existence of Osiris in Dyn. 3. He vigorously attacks Rusch for having stated that Osiris does not make his appearance before Dyn. 5!

and the other, as far as one can guess from Weill's poor drawing, perhaps the fetish of Abydos. On the last one there is again Sēth, this time with the *nbtj* sign behind, and a *kheker* pattern above. I have described these reliefs at some length, because they constitute the earliest evidence of Heliopolis and its gods furnished by excavation. Nobody since Petrie has ventured to continue systematic excavations at the site.

But in 1915 tombs were hit upon by chance, and Barsanti went to Heliopolis to investigate the finds. He excavated four tombs of High Priests (*wrw mꜣw*) which he published in *Ann. Serv.* 16, 213 ff. The texts were edited by Daressy in the same volume, 193 ff. These tombs are small (about 6 m. by 2 m. each) and poor. They were robbed in antiquity, and only a few copper tools and stone vases remained. Each consists of a little court and a tomb-chamber, the floor of which is formed by the lid of the stone coffin. The inscriptions are inside the coffins and on the walls. They are lists of offerings, and the *ḥtp dj nśwt* formula addressed to Anubis, Osiris, and Ptaḥ-Sokar. No other god is mentioned by name in any of the tombs. These three are of course the typical gods of the dead, but just at Heliopolis one would have expected something different. The tombs are dated to the Sixth Dynasty by some small obelisks [1] which were found in them, though not in their original positions. One of them belonged to a man whose name was formed with that of king Pepy, "May Ptaḥ cause Pepy to live"; on another is the cartouche of *Mry-Rᶜ* (Pepy I) in such a position that it can hardly have formed part of a personal name, especially as the name of the owner, *Nḥrj*, is mentioned twice on other sides of the obelisk. These obelisks must have come from neighbouring tombs, and cannot be much different in date from the tombs themselves. Thus at a time when the Pyramid Texts, said to have been composed by the High Priests of Heliopolis, were inscribed on the walls of the pyramids of the kings to ensure them a "solar" hereafter, texts which are generally considered to mark the victory of the priests of the sun at Heliopolis over older ideas of a life after death in the netherworld, nothing of that sort is mentioned in the tombs of the High Priests at Heliopolis. True that the "solar" hereafter in the skies was meant for the king and not for the *misera plebs*, but can we really believe that the priests who propagated this new religion should have excluded even themselves from its benefits, and have appealed in their tombs to the old gods of the netherworld alone? Among the many titles of these priests, of which *wr mꜣw* (not even mentioned in a prominent place) was one, are those of *ḥm nṯr* of the Master of Heliopolis and of *ḥm nṯr* of the two Masters of the *rḫyt*; it is not possible to ascertain which gods were meant by these epithets.[2]

If we now turn to the title of *wr mꜣw*, and try to find out who were the people entitled to bear it, and what we can gain by this for our investigations, the results will not be much more encouraging. There are two preliminary questions to be settled: was the *wr mꜣw* really the High Priest of the sun-god and of the sun-god only? and did this title belong to the High Priest of Heliopolis exclusively? As far as I can see, in the New Kingdom this title is apparently borne by high priests of the sun not only of Heliopolis, but in all those places where a special cult of the sun has been introduced, e.g. Thebes, This, Hermonthis, and Amarna. For the Middle Kingdom there seems to be no evidence.[3] The earliest occurrence of the title of *wr mꜣw*

[1] These are re-edited by C. Kuentz, *Obélisques* (*Cairo Catalogue Général*), pp. 7-10.

[2] I have to thank Professor Gunn for helping me to read these texts, which are specially difficult because they contain a number of words, probably titles, otherwise unknown, and Mr. N. Shiah for collating the texts at Cairo.

[3] See H. Kees, *Ein Onkel Amenophis' IV. Hoherpriester von Heliopolis?* in *ZÄS* 53 (1917), p. 81.

so far known seems to be that on the famous fragment of the statue of Djoser from the Step Pyramid. It was first published by Professor Gunn,[1] and it is a most remarkable coincidence that the name of Imḥōtep and the earliest example of the title *wr mꜣw* should appear on the same monument. Heliopolis is not mentioned, but one cannot help remembering that the earliest remains found in Heliopolis are of the time of Djoser.

The only known *wr mꜣw* of the Fourth Dynasty is Raʿḥotep of Mēdūm.[2] He is the oldest of the four mentioned in Dr. M. A. Murray's *Index of Names and Titles of the Old Kingdom*, and the only one whose name is compounded with that of the god Rēʿ. The title is displayed in a prominent place in his tomb, and "*wr mꜣw* of Heliopolis" is the only one inscribed on the lintel of his false door. This gives the impression that in his time both title and office were of great importance.[3]

Kꜣ-nfr and *Mr-ib* of the Fifth Dynasty are also mentioned in Dr. Murray's list. The stela of *Kꜣ-nfr* is now in the British Museum.[4] He is a descendant of Snefru, at whose pyramid he is priest. Among his many titles is that of *wr mꜣw* of Heliopolis. The reliefs of *Mr-ib's* burial-chamber are in the Berlin Museum.[5] As must have been the fashion in his days, long lists of titles are engraved on the walls of his tomb: one of these is "*wr mꜣw* of Heliopolis." Also of the Fifth Dynasty are the titles occurring in two tombs excavated by Junker at Gīza.[6] The young son of princess *Kꜣ-mnj* is *wr mꜣw* of Heliopolis and so is *Šsꜣt-ḥtp*, proud holder of twenty titles. In his case the title is on his statue only, and is not mentioned in the inscriptions of the tomb.

Among the noblemen buried around the pyramid of Teti during the Sixth Dynasty, Kagemni and Mereruka bear the title of *wr mꜣw* of Heliopolis.[7] During the Sixth Dynasty the number of titles belonging to one and the same nobleman increased considerably, and both these dignitaries boast of over fifty. In a humbler position must have been *Ṯntj*, the fourth holder of this title in Dr. Murray's list. He was buried at Ṣaḳḳāra.[8] From Mariette's publication I find it impossible to date the tomb otherwise than to the end of the Old Kingdom, and Junker dates it more precisely to the Sixth Dynasty.[9] Mariette records only one inscription of his. *Ṯntj's* titles are *Šm*-priest, director of kilts, and *wr mꜣw*. There is nothing else in the tomb to indicate a special connection with Heliopolis, and it is impossible to tell whether his solar priesthood was connected with that city or another. To these tombs from Mēdūm, Ṣaḳḳāra, and Gīza we have to add those at Heliopolis itself, but even there the title is only one among others, and is in no way more conspicuous than the rest. Finally the occurrence of the title of *wr mꜣw* on the Palermo Stone must be mentioned. Heliopolis is there referred to in the Fifth Dynasty under Weserkaf in connection with the *Bꜣw*,[10] and the *wr mꜣw* title under Neferirkarēʿ of the same dynasty.[11] As the passage mentions two *wr mꜣw* priests, the view is confirmed that more than one existed at the same time.[12]

[1] *Inscriptions from the Step Pyramid Site*, I, in *Ann. Serv.* 26, pp. 177 ff. [2] Petrie, *Medum*, pls. 10 ff.

[3] A. Scharff, in *JEA* 26, p. 46, wishes to date Raʿḥotep back to Dyn. 3, but I do not think that this is generally accepted.

[4] Reg. No. 1324. Cf. *Hierogl. Texts . . . in the British Museum*, I, pl. 4.

[5] Lepsius, *Denkmäler*, II, 18 ff.; *Aegyptische Inschriften aus den . . . Museen zu Berlin*, I, pp. 88 ff.

[6] H. Junker, *Gîza I*, pp. 252, 255; *Gîza II*, p. 189.

[7] Firth and Gunn, *Teti Pyramid Cemeteries*, I, pls. 105, 133; v. Bissing, *Die Mastaba des Gem-ni-Kai*, II, pl. 2.

[8] A. Mariette, *Mastabas de l'ancien Empire*, C. 18.

[9] *Gîza I*, p. 255. [10] Sethe, *Urkunden*, I, p. 240, 6. [11] *Op. cit.*, p. 247, 3.

[12] The very fact that in the Old Kingdom the title *wr mꜣw* is mostly followed by *'Iwnw*, i.e. "*wr mꜣw* of Heliopolis" implies that there were other *wr mꜣw* priests not of that city.

Summing up the results provided by excavation and the oldest available written documents, we find that they are in complete agreement. The earliest objects brought to light at Heliopolis are of the time of King Djoser; the earliest mention of the *wr mꜣw* priest is from Djoser's tomb-pyramid. Heliopolis as the town of the *wr mꜣw* occurs first in the tomb of Raʿḥotep of the early Fourth Dynasty. Raʿḥotep was a great prince, and the office of *wr mꜣw* seems to have had considerable importance in his eyes. If tradition is correct, its holders must have increased in power during the Fourth Dynasty, for the High Priests of Heliopolis are said to have overthrown that dynasty and to have ascended the throne of Egypt as the first kings of the Fifth Dynasty. Once installed as kings they do not seem to have had a special interest in maintaining the office of *wr mꜣw* in a dominant position, though the worship of the sun was advanced, and new sanctuaries of the sun were created. The title of *wr mꜣw* was just one among many the nobles held, and nothing indicates that it was in any way more important than any of the others. Even a child, *Kꜣ-mnj* the son of *Wnšt*, is among its holders.[1] Under the Sixth Dynasty the importance of the title and the office seems to have further deteriorated, as the meanness of the tombs of the *wr mꜣw* priests at Heliopolis shows. The further history of the high priests of Heliopolis is not of interest here, but from the fact that no Middle Kingdom example of the title has yet been discovered, one is inclined to think that their status was not much improved in that period.

Thus there is nothing in the facts so far known to support the hypothesis of a prehistoric kingdom of Heliopolis. Even if we agree with Sethe that the assumption of a political predominance of Heliopolis is necessary to account for the religious importance it held during the New Kingdom and later, it is much more likely that this position was attained during the Fourth and Fifth Dynasties. For both the facts and the tradition of the Egyptian people tell us of its political and religious preponderance then. Of the prehistoric kingdom of Heliopolis neither knows anything.

I am of course perfectly aware that something may be found at any moment proving the existence of Heliopolis before the Third Dynasty. Yet it is curious and not without importance that excavations carried out in the ancient centres of Upper Egypt have always yielded prehistoric remains, even though they were made at a time when the existence of a prehistoric Egypt was unknown. It was thus at Koptos, one of Petrie's earliest excavations, where he dug right through the prehistoric settlement, and probably the temple as well, without realizing what he was unearthing, and later at Naḳāda, where he excavated what seems to have been the burial-place of the political centre of prehistoric Egypt. At Abydos a prehistoric settlement was found inside the Temenos, and at Hierakonpolis the painted tomb (or house ?[2]) was among the main finds of importance. None of these excavations have been in any way different from those made at Heliopolis, and yet neither there nor anywhere else in Lower Egypt have there been discoveries of prehistoric material which could at all rival in importance those of Upper Egypt. As long, therefore, as there is no more cogent proof of even the existence of Heliopolis in prehistoric times, it is safer not to accept any theory of a prehistoric kingdom of Heliopolis dominating the South and imposing its superior culture on Upper Egypt, a state of affairs, moreover, of which the ancient Egyptians themselves seem to have been utterly unaware. And yet their historical memory must have been extremely tenacious, as is shown by the statue-base from the Step

[1] Junker, *Gîza I*, p. 255.

[2] G. Brunton, *The Predynastic Town-site at Hierakonpolis*, in *Studies presented to F. Ll. Griffith*, pp. 272 ff.

Pyramid at Ṣaḳḳāra, which proves the historical truth of the long-lived tradition that Imḥōtep existed, and lived in the time of Djoser. I am very glad indeed that these conclusions agree with and are supported by Neugebauer's interesting articles showing that there was no Sothic Period in prehistoric times, nor a chief astronomer at Heliopolis able to read the course of the stars.

There remains one small point to be cleared up. Breasted published an article [1] on the fragments of the "Palermo Stone" which are in the Cairo Museum, and maintained that these fragments come from the same monument as the one in the Palermo Museum. He is able to find on the very badly damaged fragment in Cairo, behind some kings wearing the Lower-Egyptian crown, a row of seven kings with the double crown of Upper and Lower Egypt who, according to Breasted, must have preceded Menes.[2] As Kees later pointed out,[3] this does not agree at all with the traditional rôle of Menes as the uniter of Upper and Lower Egypt. Breasted, however, tried to explain the difficulty by making Menes rebel against the kings of the Delta who had united Egypt before his time, and thus gain the supremacy for Upper Egypt. This is of course without any foundation in the facts so far known.

Having thus disposed of Heliopolis as the capital of a prehistoric state, I proceed to examine the line of argument, based on archaeological grounds, attempting to prove an early predominance of the Egyptian Delta over the rest of the country. Here again a problem must be discussed beforehand. It is generally assumed by the defenders of this thesis that the Delta was co-extensive, as in modern times, with Lower Egypt. Though it has been pointed out that a town well south of Heliopolis and Cairo was considered by the ancient Egyptians to belong to Lower Egypt,[4] I do not think that any consequences have been drawn from this. Sethe himself points out where the frontier between Upper and Lower Egypt may have been. Speaking of the Eleventh Upper-Egyptian nome he says: "It is perhaps no mere chance that this nome of Seth was situated at the frontier of the Thebais, the old 'Head of Upper Egypt,' alongside the town of Siut, which by its name and historical rôle is characterized as a frontier province." [5] When discussing Asyūṭ Sethe elaborates the same topic: "Siut or its nome respectively always, even in later times, played a special part as a sort of frontier town or province. There ended the 'Head of Upper Egypt' (*tp šmʿ.w*), i.e. the southernmost part of the country, beginning at the cataract of Elephantine, the Thebais of Greek days, and there began the Heptanomis, which as early as the New Kingdom was reckoned to Lower Egypt. Perhaps even the name of the town, which does not seem to mean anything but 'guardian,' refers to this rôle as frontier sentry (cf. the old writing of the Pyramid Texts)." [6]

Before Sethe, v. Bissing came to the same conclusions.[7] He writes: "Schneider has drawn the conclusion in *Kultur und Denken*, 38, that Siut must have played a specially important part in the conquest of Lower Egypt. Perhaps the northern frontier of the southern kingdom was once situated here, where later the frontier of the Thebais ran, and it may have stood under the special protection of the warlike god (Wepwawet). . . ." To this we may add that here was "later" not only the frontier of the Thebais, but the frontier of Upper Egypt. Rekhmirēʿ, who was

[1] In *Bulletin de l'Institut français* 30, p. 720. [2] They had already been noted by Gardiner in *JEA* 3, p. 143.
[3] *Ägypten*, p. 322. [4] See Sethe in *ZÄS* 44, pp. 28 f. [5] *Urgeschichte*, p. 74.
[6] *Op. cit.*, p. 48. Wainwright points out, *Ann. Serv.* 27, pp. 93 ff., that there is a "natural" frontier between Asyūṭ and Cusae.
[7] Bissing-Kees, *Untersuchungen zu d. Reliefs aus d. Re-Heiligtum des Rathures* (*Abh. München*, 1922) 1, p. 32.

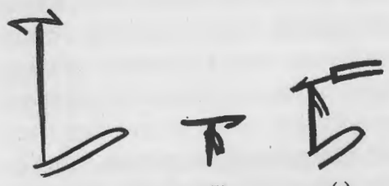
the Vizier of Upper Egypt, had under his administration the country from Elephantine to Asyūṭ.[1] As I do not know of similar facts that may indicate a more northerly frontier of Upper Egypt during the Old Kingdom and even later, it will be assumed that during the period with which this paper is concerned the frontier between Upper and Lower Egypt lay in the same region.

This is of importance in connection with the theory which will now be discussed regarding the so-called "nome ensigns" on the ships which are painted on some of the "decorated pots" of the Naḳāda II period. The cabins of these ships are adorned with poles on the tops of which are various emblems. Some of these belong to gods still venerated in historical times, others cannot be explained, and their meaning was probably forgotten by the later Egyptians. Among those known to us some are later used to write the names of Egyptian nomes which are preserved to us in nome-lists and other inscriptions. No complete nome-list has come down to us from the Old or Middle Kingdom, nor do we know how many nomes existed in those periods. Steindorff [2] is of opinion that the division of the country of Egypt into nomes was completed as regards Upper Egypt during the Old Kingdom, probably during the Fifth Dynasty, as regards Lower Egypt not until the Middle Kingdom. He bases his opinion on the fact that in the Old Kingdom we find the same division of Upper Egypt as we find in the New Kingdom. The oldest known nome-lists are those of the Sun Temple of Neweserrēʿ and the pyramid-temple of Sahurēʿ in the Fifth Dynasty. They are not complete, but if we supplement them by names of nomes known elsewhere in the Old Kingdom, we find evidence for all the nomes of Upper Egypt. "The state of things is different with Lower Egypt. . . . As shown by the texts of Meṭen, and Se'bu, and on the Palermo Stone, there still existed in the Fourth and Fifth Dynasties nomes which cannot be identified in the Middle Kingdom." [3] If we accept the suggestion that the Delta was only slowly developing into habitable land, it is understandable that the full division into nomes was comparatively late.

Those in favour of the Delta Hypothesis contend that the division in Egypt in prehistoric times was more or less the same as that given by the lists of the New Kingdom and the Graeco-Roman Period. They believe that the emblems of the ships on the Naḳāda II vases are nome-standards. Newberry, who has studied this question, attempts to identify the different symbols and to trace their ultimate origin.[4] He first tries to show that the landscapes shown in these vase paintings represent the Delta. This he bases on the stylized drawings of birds often found on these pots, which he thinks to be flamingoes and not ostriches. "The flamingo," he says, "is an extremely local bird; it seldom occurs in Upper Egypt, but is abundant in the region of the Delta Lakes." The last might hold good if we could assume that the fauna of Upper Egypt was the same today as it was in antiquity; we know that it was not, so that this argument is invalid. Newberry then goes on: "On these vases we also find depicted stretches of water and lines of pointed hills or sand-dunes, which suggest hilly or sandy country like that along the western and northern edges of the Delta. These three points indicate at once a country like Lower Egypt, and when we examine the cult-signs of the boats we see that these point Delta-wards also." I think that water lines and hills are as characteristic of Upper Egypt as of the Delta, so that this argument also may safely be discarded. In his valuable catalogue of the

[1] Newberry, *The Life of Rekhmara*, p. 18.
[2] *Die aeg. Gaue u. ihre politische Entwicklung* (*Abh. Leipzig*, XXV, 1909), p. 869. [3] *Op. cit.*, p. 878.
[4] *Some Cults of prehistoric Egypt*, in *Ann. Arch. Anthr.* 5, pp. 132 ff.

decorated pots with ships and their emblems,[1] Newberry has collected 288 ensigns. He tries to demonstrate that of these 196 belong to the Delta, i.e. to nomes situated there. He assumes [2] that "it is generally recognized that the nomes of Egypt are the survival of pre-Menite States. . . . A study of the nome ensigns ought, therefore, to yield us some information concerning the various States of Egypt before the founding of the Monarchy by Menes." Of the ensigns on the boats 116 carry what Newberry calls the Harpoon sign. This must be a misunderstanding, as the harpoon occurs at most twice (fig. 1, *b*, *c*).[3] The two-barbed symbol which Wainwright calls the "Z-sign" (fig. 1, *a*) cannot also have been a harpoon, for the barbs are not only fixed on opposite sides of the stem but point in opposite directions. No such prehistoric harpoon exists in Egypt; when there is more than one barb they are regularly [4] on the same side of the stem and they always point in the same direction. The late prehistoric harpoon of the time of the decorated pots has only one barb (pl. 5, 9 and 10), and for the Egyptians themselves the single barb was so characteristic of the harpoon that they used the harpoon as an ideogram for the numeral "one." All the harpoons that we know from late prehistoric pots or elsewhere have one barb, the most famous one being that on the palette of Narmer with the falcon on it. On one prehistoric pot and on a slate palette the Z-sign appears together with a harpoon (fig. 2) [5] which shows that they are



(*a*) (*b*) (*c*)

Fig. 1. From Petrie, *Diospolis Parva*, pl. 20, Nos. 2 (*a*), 3 (*b*), 9 (*c*).

Fig. 2. From Petrie, *Diospolis Parva*, pl. 12, No. 43, (Tomb B 102, S.D. 33-41).

two distinct objects. Newberry may have been misled by the later sign of the Harpoon Nome, which shows a harpoon in a shaft, which is provided near its middle, not at its end, with a spur ending in a ring pointing in the opposite direction to the barb. No such ring is ever depicted on a prehistoric harpoon, nor does the second barb of the "Z-sign" ever start from the middle.

Moreover, it is not generally recognized that the nomes are survivals of pre-Menite states. Steindorff (*loc. cit.*) flatly rejects this view. He emphasizes the fact that we know of no earlier political system in the country than that of the "two lands." We may add that towns existed in Upper Egypt as early as Naḳāda II and probably earlier, but whether even some of them were independent in the sense of the Mesopotamian city-states we do not know. In the one case where we can observe the founding of a nome in the light of history it was certainly not a city-

[1] See his *List of Vases with Cult-signs*, in *Ann. Arch. Anthr.* 5, pp. 137 ff.
[2] *Notes on some Egyptian Nome Ensigns and their Historical Significance*, in *Anc. Eg.*, 1914, p. 5.
[3] (*c*) is not necessarily a harpoon.
[4] Only one exception is known to me; see *Naq. Bal.*, pl. 61, 13. The barbs, however, point in one direction.
[5] *Corpus* 34, 45 M, *Bad. Civ.*, pl. 54, 15 show warriors armed with harpoons, and 16 a ship with the "Z-sign."

state. Memphis and its nome founded by Menes formed an administrative province from the beginning, and the nome is written with the name of the capital, "White Wall." This, as Steindorff shows, is the general custom. Nome-signs are not emblems, but geographical designations derived from the capitals of the districts. These capitals changed during the historical period, but not so the names of the nomes, which therefore sometimes differ from the names of the capitals of later periods. On this account Steindorff refuses to make any use of the emblems on the prehistoric ships, and regards them not as nome ensigns, even in the few cases where they are similar to later nome-names, but as emblems of gods. Newberry himself takes this view, and it is, I think, supported by the decorated vases themselves. (See Newberry's article in *Ann. Arch. Anthr.* 5, 132.) Each of the ships represented on these pots has two structures generally called cabins, to one of which a pole is fixed carrying the emblem in question. It seems that these light structures were not fixed to the ship, but were removable, for they have hooks or loops on top in which a pole might be inserted or removed at will.[1] This view is confirmed by pictures of such structures occurring by themselves on both sides of an emblem which is generally explained as a shield,[2] but the true meaning of which we do not know. It must have been some venerated object, and I think we may explain the "cabin" as a chapel used for its cult. The emblem was set up near the chapel, to indicate that this was a sacred place. This may perhaps be the explanation also of the so-called flower-pots attached to the sacred trees which we find on the vases. Some of them are so roughly drawn that they really look somewhat like flower-pots, though the horizontal bars cannot be explained on this view. Others, however, are clearly the same light structures as those on the boats or near the shield-like objects [3] (pl. 7, 6). From the well-known tablet from Abydos with the sanctuary of Neïth [4] we know that in the temenos of that sanctuary a pole was erected to which the emblem of the goddess was fixed. It seems justifiable to assume that the emblem was fixed to the shrine itself, when the latter was put on the boat. Shrines of gods on boats are a common feature in Egypt, where boats were the usual means of transport; they are already shown on the Palermo Stone, and the labels from Abydos.[5]

But there are other reasons against the interpretation of the emblems of the boats as nome-ensigns. What would be the purpose of burying such pictures with the dead? If it was thought necessary to indicate his original home or tribe, why have two or three different ones on one vase? And there is no cemetery in which one emblem is so predominant that we can assign the cemetery to a particular tribe or nome. Instead, we find the same emblems on vases from various cemeteries without any preference. As it is unlikely that the towns to which these cemeteries belonged harboured a population of many different tribes, or that all those who were buried therein came from abroad, we can only conclude that the emblems had nothing to do with nomes or tribes, but were the ensigns of those gods who were worshipped by the dead and their kin.

Nor can any evidence be found that these pots were made or originated in Lower Egypt or the Delta. They have been found mostly in cemeteries of Upper Egypt, and become rare or cease

[1] On the prehistoric wall-painting from Hierakonpolis the loops fixed to these little structures are very prominent. Only the sea-going boat with the high prow has a real cabin in addition.
[2] E.g. *Corpus*, pl. 33, Nos. 41 M, 41 N, 41 V; *Hierakonpolis*, II, pl. 77.
[3] See *Mostag.*, pl. 38.
[4] Petrie, *Royal Tombs*, II, pl. 3A (tablet of King ʿAḥa).
[5] E.g. *Royal Tombs*, I, pl. 17, 26.

to exist as we proceed northwards. None were found at Merimda, and only a few sherds of very late design (without boats) at Maʿādi. Two small vases with ships were found at Abuṣīr el-Meleḳ, thirteen at Gerza (only two with boats), two and a few sherds at El-Haraga. Against this there are dozens from Naḳāda and Ballāṣ alone. Moreover, they begin to appear in the south at a much earlier date than in the north.

There is one other group of pottery to which a northern origin is very often ascribed, namely the wavy-handled type. As very similar vases have been found in Palestine Miss A. Herz first suggested a centre of distribution in the Eastern provinces of the Delta, and A. Scharff is inclined to follow her in this.[1] Attractive though this idea may be, there is not the slightest evidence that there were any provinces in the Eastern Delta from which such pottery could be derived, nor has a wavy-handled pot ever been found there.

I can therefore see no reason why either decorated pots or the wavy-handled ones should have originated in the Delta, or why the Naḳāda II culture of which they are characteristic should have originated there, especially since recent excavation has unearthed no pot of either kind at earlier levels in the Delta. The only region where decorated pottery occurs before Naḳāda II is, as Petrie showed long ago, Upper Egypt, where it occurs sporadically during Naḳāda I.[2]

But we must turn to the recent excavations in Lower Egypt and the Delta. It seems best to begin with the two sites which are the earliest in date, Merimda-Beni-Salāma and the Fayyūm. Though no final publication of Merimda is yet available, many and far-reaching claims have been made as to the age and importance of this site. It has been claimed to be of the "neolithic" period, and contemporary with the Badārian of Upper Egypt, if not earlier. The use of the term "neolithic" in connection with Egyptian prehistory is surely improper. It was adopted in European prehistory at a time when it was thought that the "New Stone Age" followed immediately upon the Paleolithic, and that it had universally preceded the age of metals. A "Mesolithic" age has since been discovered between the two; while this was still dominant in Europe agriculture had been invented somewhere in the Near East, and the discovery of metal, gold and copper, belongs to the same cultural complex and to the same period, a period which indeed broadly speaking marks the beginning of modern civilization. When food-production, as opposed to food-gathering, spread to Europe, metallurgy for various reasons did not accompany it at once.[3] Thus "neolithic" acquired the meaning of a culture lagging behind in one of the essential acquirements of the new civilization. We do not know of any period in prehistoric Upper Egypt (apart from Paleolithic times) when metal was certainly unknown. True, we cannot prove it for the Tāsian yet, but, as we shall see later on, our knowledge of this culture is still so limited that we cannot be sure of much more than its existence. Thus, if Merimda is claimed as "neolithic" by its excavators, H. Junker, O. Menghin, and A. Scharff, this can mean only one of two things, either that metal has not yet been found there, or that the "Merimdian" is a belated civilization, flourishing at a time when the use of metal was already practised in Upper Egypt. This last point we must now examine.

There are two different methods of dating a prehistoric civilization, and establishing its

[1] *Die Altertümer*, Pt. I, p. 25.
[2] The pots shown in *Corpus*, pl. 31, 10 G and 13 W occur as early as S.D. 31.
[3] For a more detailed exposition of this point see C. F. C. Hawkes, *The Foundations of Europe*, pp. 284 ff.

cultural relations, one based on the pottery, the other on the flint industry. The second one has been badly neglected in Egypt, and yet it will explain some facts which study of the pottery alone has been unable to reveal. If we turn to the flint industry of Merimda we find that it is a core industry with a fair admixture of worked blades.[1] Moreover, the practice of grinding a flint tool and then flaking it was known, not only in its earlier stage, at which both sides of the implement were first ground to the required thinness, and then flaked all over, but also in the later development, when one side was left without its finishing flaking. If we examine the flint industry of Upper Egypt, we see that including that of Naḳāda I it is almost purely a core industry. It is indeed astounding that any culture of post-Mesolithic times should have kept itself so free from foreign admixture. When working through the vast flint material excavated by Petrie in the cemeteries of Naḳāda and Ballāṣ, and now kept mainly in the Petrie Collection of University College, London, and in the Ashmolean Museum, Oxford, it struck me forcibly that with the exception of one or two rough blades the whole of the blade material, as far as the graves could be dated with certainty, belonged to Naḳāda II. That the beautifully trimmed "twisted blades" belong to this period has already been noted.[2] Unfortunately there exists no stratigraphically excavated settlement belonging to Naḳāda I, a period still very imperfectly known. It must therefore be taken into account that such a settlement might give a different result, and that the Naḳāda I people may to a certain extent have used blades which they did not put into the tombs. The settlement at Hammāmīya unfortunately leaves a blank just for that period, the Badārian camp being earlier, and the hut-circles above it belonging to the time of transition to Naḳāda II. Yet Miss Caton-Thompson would place, though rather reluctantly, a certain type of small blade-knives as early as the Badārian period. She says: "Another interesting form which, though made on flakes, appears also to be Badarian, is shown in a series of small knives of good workmanship. . . ." After describing them in detail she goes on: "I am aware that the distribution of these little blades in the settlement is not completely consistent with my claim for them of a Badarian age."[3] I should rather date them to about the time of the Hammāmīya hut-circles, and even later, and this opinion is confirmed by O. Myers' excavation of the settlement of Armant. This is of Naḳāda II, but begins as early as the period of transition, and there also the small knives described above turn up. The type which is truly comparable to those of Hammāmīya occurs only in the top level, though variants of it are found occasionally in the deeper strata.[4] Thus the fact that at Merimda the flint industry, though in great part still a core industry, shows "a fair admixture of blades"[5] should in itself prevent us from dating it early, even if we consider for comparison the Upper-Egyptian sites only. If we turn to the results of the Fayyūm excavation we shall find that our reluctance to ascribe a high antiquity to Merimda is justified. The "A" or earlier culture is a pure core industry, while "B" is characterized by the admixture of a great number of blade tools. But we can push our investigations still farther. Miss Caton-Thompson in her book *The Desert Fayum* has for the first time drawn our attention to a technique which she observed during her work in the Fayyūm,

[1] H. Junker, *Vorbericht über . . . Merimde-Benisalâme*, in *Anz. Wien*, 1932, p. 66; 1930, p. 68.
[2] Huzayyin's statement in *Cem. Arm.*, p. 221, that Petrie dates a number of these blades to S.D. 34 to 63 is due to a misunderstanding of Petrie's system of dating. In *Anc. Eg.*, 1915, pp. 124, 126, to which this quotation refers, Petrie describes one twisted blade which he cannot date more accurately than *between* S.D. 34 and 46, the others he dates to between S.D. 47 and 50, S.D. 56, S.D. 58, S.D. 61 and S.D. 63.
[3] *Bad. Civ.*, p. 76. [4] Huzayyin in *Cem. Arm.*, p. 220. [5] Junker in *Anz. Wien*, 1932, p. 66.

namely grinding before retouching. It occurs on the fine points and knives, and, as she specially emphasizes, on the flint axes. This technique is unknown in Badārian times, but is practised on the fine bifacial knives and fish-tails of Naḳāda I. Moreover one of the little flint axes, ground and flaked, was found at Naḳāda town [1] (pl. 4, 3). We cannot date this piece definitely to either of the two Naḳāda periods, as the small excavation at the town of Naḳāda was not made stratigraphically; we can only affirm that it cannot have been earlier than Naḳāda I, for nothing earlier than that period occurs in the settlement. Since it seems to me unlikely that this sophisticated technique was invented in the Fayyūm, and since it is not earlier in Upper Egypt than Naḳāda I, this appears to me the earliest period to which we can assign the "A" culture of the Fayyūm. This offers a basis for the dating of Merimda also, for such polished and flaked axes, described as flaked with a polished edge, occur there too. As the Petrie Collection has been fortunate enough to acquire a small collection of Merimda material, I have been able to put axes from both sites side by side; the type is one and the same. We know that the technique of grinding and then flaking was used in Naḳāda I, but was first brought to perfection during the Naḳāda II period, and that the most beautiful pieces, those known as "ripple flaked," are as late as S.D. 60. Now Junker tells us again and again of the perfection of the Merimda flint industry, and of the beautiful ground and flaked points, knives, etc. It is very difficult to assume that this very sophisticated industry should be so much earlier in a peasant settlement on the outskirts of Libya than in the centre of Upper Egypt. We are fortunate enough to have a parallel among the flint material which will confirm the conclusion reached by general considerations. Among the flint tools which have been published from Merimda there is a spear-head of exceptional workmanship. It is ground on a rough surface, and consequently deeply scratched. Its edge has been trimmed with a very fine retouch after the grinding was finished. This piece looks as if it were a predecessor of the ripple-flaked knives, which also were ground before the secondary retouching and finished off by a fine retouch around the edge (pl. 4, 1). Among the flint spear-heads from Naḳāda now at the Ashmolean, one has been ground on a rough surface so that deep scratches were formed, and it has been finely trimmed with a secondary retouch along the edges. It is of the leaf-shaped type, not winged like the Merimda piece, but in spite of that it certainly comes from the same manufacture. The tomb in which it was found at Naḳāda (No. 414)[2] is fortunately well dated to S.D. 55, that is to the well-developed Naḳāda II period (pl. 4, 2). When I first handled the piece in the Ashmolean, I thought it was unfinished, and for one reason or other had never received its ripple-flaking. I am now inclined to take it as a less developed stage of the same technique of grinding before flaking. As the Naḳāda piece fits in very well with the rest of the highly accomplished Naḳāda II flint technique, there is no possibility of separating it from that technique, or of dating the piece from Merimda to an earlier period. We do not know where the seat of this highly developed flint industry was. None of the settlements excavated so far had a flint factory or flaking place, or even nodules large enough for axes, not to speak of large spear-heads and knives. Huzayyin states [3] regarding Armant that "in all probability the greater part of the artifacts were prepared (and perhaps even finished) at some

[1] There is another small flint axe of the same type in the Petrie Collection. It most probably comes from Naḳāda as well. But as it is not marked I have ignored it, together with all the rest of the unmarked objects from the Naḳāda material.

[2] *Naq. Bal.*, pl. 72, 51. The piece from Naḳāda is about double the size of that from Merimda.

[3] In *Cem. Arm.*, p. 227.

flaking site or sites somewhere in the neighbourhood." That is to say, they were not locally made. We know of flint mines in the High Desert on the outskirts of Egypt, and we know also that these mines were surrounded by flaking places, each of which produced one special tool. But we can neither date these mines nor say to which places their output was traded. We can hardly doubt that the exquisite ground and flaked tools of Naḳāda II were traded all over Egypt, or that their presence in any place provides us with an excellent means of dating, at any rate with a *terminus post quem*. Thus as regards its flints Merimda cannot be dated earlier than Naḳāda II. We will now see how the Merimda pottery agrees with this conclusion.

In spite of local differences early Egyptian pottery is astoundingly uniform in style and in what may be called its basic elements. Its simple shapes go back to leather and basket forms. They have no real handles, and spouts are very rare; the rims are straight without lips. In earlier times the pottery consists mostly of bowls, saucers, and cups; later on there are some bottles and beaker forms, and some imitating stone vessels. There was a rougher ware, and a finer pottery which was dyed red and polished mechanically. This polished red pottery is the characteristic ware of prehistoric Egypt, and was moreover used throughout the historic period. This fact has not been sufficiently appreciated. Owing to a mistaken theory of the technique of its manufacture it was formerly thought that the famous "black-topped" pottery was the earliest and most characteristic ware of prehistoric Egypt. The black top was believed to be the result of incomplete oxidation of the red iron ochre with which the vessel was dyed. It was supposed that the pot was burned mouth downwards in an open fire, and that its top was prevented from turning red by the ashes that covered it up to a certain point. We now know that the black top was not made in a single process together with the red body of the pot. A. Lucas has shown by his experiments that for the red pot to acquire its black top a second process was necessary, and that it had to be treated with a special matter, carbon, which is not present in the red slip.[1] Black-topped pottery was thus a *development* of the polished red ware, and not a less accomplished stage in its manufacture. So far as our present knowledge goes it was not native in Lower Egypt, and only rarely imported. None of the black-topped pieces of which we know from Lower Egypt are earlier than Naḳāda II. The polished red, and the many varieties of "rough" pottery, are however found throughout Egypt. It is among these types, therefore, that we shall have to look for help in dating Merimda.

Incised pottery is rare in Egypt, though perhaps not quite so rare as is generally assumed. I do not speak here of the famous black-incised ware, but of the polished red and "rough" pots on which simpler incised designs occur. Among these is one that has been called the herring-bone pattern; it consists of rows of angles fitted into each other, their apexes sometimes joined by a straight line. This pattern is the characteristic feature of the pottery found in the hut-circles at Hammāmīya, and dated there round about S.D. 40.[2] It is interesting to note that at that date "decorated" pottery had not yet arrived at Badāri, but the herring-bone pattern persisted there to a later date, and has also been found in the stratum above the hut-floors, together with decorated ware. The herring-bone pattern is traced around the rim of a vase from Naḳāda, tomb 1436 (S.D. 38), now in the Ashmolean (pl. 6, 6). It is published by Petrie in *The Making of Egypt*, pl. 21, as an example of early Gerzean (Naḳāda II) pottery. Another

[1] *Black and Black-Topped Pottery*, in *Ann. Serv.* 32, p. 93.

[2] *Bad. Civ.*, p. 76, pls. 72, 73.

example, a little later in date, was found in the prehistoric cemetery of Hierakonpolis.[1] Junker [2] counts the herring-bone pattern among the characteristics of the Merimda culture. We do not know how much time elapsed before this pattern arrived at a place so far away from the centre of Egyptian culture as was Merimda, but at any rate it cannot be earlier than Naḳāda II. This dating agrees with another peculiarity of the Merimda pottery. Junker mentions that quite a few of the pots have lips protruding from the rims. This is again a sign of their being not early, for the earliest Egyptian pots have straight rims.

Thus the result obtained by the comparison of the pottery leads us to the same period as we deduced from the technique of the flint industry, and we can therefore state that the beginning of the Merimda settlement must have taken place at a time when the Naḳāda II culture was already well established in Upper Egypt. This date is supported by the occurrence of the pear-shaped mace-head typical of Naḳāda II. The cultural position of Merimda will be further discussed below.

In conclusion, we can say that the facts gained from excavations in Lower Egypt and from archaeological material elsewhere give no evidence of a Lower-Egyptian culture earlier in date and more advanced than that of Upper Egypt, nor any sign of a prehistoric kingdom in the Delta, dominating Upper Egypt. They thus confirm what the texts have already made likely, and what the study of the climate of the country makes probable.

IV. Where did Egyptian Civilization Originate?

If, then, Egyptian culture did not originate in the Delta, and there was no prehistoric kingdom of Heliopolis long before Menes, where did that culture come from? Or was it perhaps indigenous in the country and developed there from a Mesolithic civilization? And what do we know about it with some degree of certainty? I am afraid we know very little, but I will now try to outline the facts, and even draw a few conclusions, while endeavouring to refrain from any new hypothesis not based on facts, to say nothing of one contradictory to them.

First, the question will be discussed whether it is likely or even possible that the Egyptian culture developed from an earlier Mesolithic civilization in Egypt itself. Egypt's prehistory, which reaches much farther back in time than that of most countries, might offer a unique opportunity of observing the development of a civilization from Palaeolithic through Mesolithic and Chalcolithic into historical ages. Finds of the Lower Palaeolithic period are abundant, and although no work has yet been done sufficient to give us a real insight into the duration and character of its culture, we know that the cliffs of the high desert bordering on Egypt were the hunting-ground of a Palaeolithic population. Signs of life in Upper Palaeolithic times are much rarer, and fade out altogether during the Mesolithic Period. The Sebilian culture, which seems to have been akin to Capsian, is still very imperfectly known. Unfortunately, the only really scientific work that has been done in this subject has not been fully published—this refers to the excavations of Miss Caton-Thompson and Miss Gardner in the Kharga Oasis. The delay in publication is not due to any fault of theirs, but it is nevertheless very much to the detriment of science. The preliminary reports, which are all we have at present, state that they have found a pre-Sebilian culture overlying Middle Palaeolithic strata, and above it a stratum with

[1] Quibell and Green, *Hierakonpolis*, II, pl. 66.

[2] *Anz. Wien*, 1932, pp. 80 f.

Atérian affinities. I will not go deeper into this, but will only point out that the Upper Palaeolithic civilizations so far encountered in Egypt are flake and blade cultures. The same is true of the few examples of Mesolithic age that are known in Egypt. Those in Upper Egypt are the last stage of the Sebilian; that stage with its geometric microliths is a near relation of Capsian civilization. In Lower Egypt Helwān is of doubtful age, yet its affinities point to the Natūfian of Palestine, also a blade culture. If therefore we find in Egypt at the beginning of Chalcolithic times a culture with a core industry we must presume that there was no connection with these blade industries. The early stages of the culture which develops into civilization of historic Egypt is therefore not in the line of evolution of the Mesolithic or Upper Palaeolithic of the Nile Valley, but is fundamentally different from it, as well as from the Capsian of North Africa and the Natūfian of Palestine. With this agrees a statement by Sandford and Arkell made when dealing with the geology of Upper Egypt between Hierakonpolis and Esna; they say: "It follows, therefore, that the whole of Sebilian times had passed away and the silts had been eroded to their present contour before the period represented here by the earliest of the predynastic remains." [1] This is a fact of the greatest importance. It does away with the story of hordes roaming through North Africa and eventually settling in the Nile Valley because the desiccation of the Sahara had made human life impossible there.

If ever there were "roaming hordes" in North Africa, they were not the ancestors of prehistoric Egypt; Capsian and Natūfian had no influence on it.[2] Whether the desiccation of North Africa had any influence on the early settlers of Egypt is moreover doubtful. If the desiccation had some connection with the retreating of the Würm glaciation, as is generally assumed, it must have set in some time after 12000 B.C. The beginning of predynastic civilization in Egypt cannot very well be pushed back much farther than the centuries preceding 5000 B.C. Thus there remains a period of nearly 7000 years which we cannot bridge over with the scanty Mesolithic remains in Egypt. The period during which Egypt was reclaimed for human habitation was moreover one of increasing humidity, making part of the desert inhabitable, and the Nile Valley itself so damp that the earliest settlers had to pitch their tents on the low spurs of the desert.

As we have now rejected West, North, and East as possible earlier homes for the predynastic people of Egypt, and it seems impossible that they should have developed on the spot, only the South remains as a source. Before we discuss this possibility in detail it is advisable to take stock of what we know of Egypt's earliest civilization.

[1] K.S. Sandford and W. J. Arkell, *Paleolithic Man and the Nile Valley in Nubia and Upper Egypt*, p. 46. Compare the statement in their *Paleolithic Man and the Nile Valley in Upper and Middle Egypt*, p. 105: "Similarly the Neolithic stations of Egypt fail to attach themselves to any preceding industry that we know within the country. Here, then, in the study of climate and human industry, a blank page in history remains to be inscribed."

[2] The same conclusion has been reached independently as the result of researches into the Mesolithic and Neolithic civilization of North Africa. R. Vaufrey in his recent book *L'Art rupestre Nord Africain*, says, p. 117: "Nous avons ainsi l'impression que le Néolithique de tradition capsienne, dont les éléments microlithiques viennent du Capsien, s'est constitué en empruntant successivement à l'Egypte ses éléments proprement néolithiques." Thus the influence came from Egypt, and not from North Africa. I believed it to be otherwise before I knew the material evidence.

V. The Earliest Phases of Egyptian Culture

A.—*The Tāsian*

The earliest civilization so far known in Egypt is the "Tāsian." It was discovered by Brunton at a cemetery and so-called village sites near Mustagidda.[1] Unfortunately the place did not lend itself to thorough investigation. No stratigraphic evidence could be obtained. The tombs were intermixed with tombs of the pure Badārian culture, of which the Tāsian is a near relative and probably an immediate forerunner. As we do not know much of Badārian, which so far has been studied only at Badāri, and next to nothing of Tāsian, it is extremely difficult to separate the one culture from the other. An effort has been made to gain further knowledge from the skulls, but there again the material is too small to be of much help. From the few tombs which could be ascribed on typological grounds with more or less certainty to the Tāsians, a rough outline has been traced of what is meant by Tāsian. From this the finds in the settlements have been classified. It is again unfortunate that we do not know of any other Badārian village site; the lowest stratum at Hammāmīya was nothing more than a hunting camp or a temporary encampment, in which not even hearths were found, and the material discovered was of very restricted range. Thus in many cases there is nothing with which to compare the Tāsian types. As to the flint implements no definite criteria were forthcoming to enable Tāsian flints to be distinguished from Badārian[2]; we shall therefore have to leave them aside. Eighteen "polished celts" found in the village sites are, however, claimed by Brunton as Tāsian. Thirteen of these are of hard limestone, the remainder of igneous rock; most of them are "hammer-dressed" and partly ground. Brunton tries to support his attribution by the result of an excavation made by Sāmi Gabra, who found tombs at Dēr Tāsa, one of which contained a contracted skeleton together with a rough pot of indefinite type and date and two "celtoid" tools of limestone.[3] As this tomb was dated Tāsian from these two axes, it cannot be used to date them, and it is their date that is needed. We cannot say with any degree of certainty what a Badārian axe was like. In *The Badarian Civilisation*, p. 36, Brunton seems to assume that the ground stone axes were characteristic of Badārian. Several were found at Badāri and Ḳāw, but none in a context that would exclude doubt. One flint axe, polished and "either re-worked by chipping round the edges or else damaged" (*loc. cit.*), was unearthed. This description rather suggests the Fayyūm type, but again it was not found in a dated context. Thus we can only conclude that the pecked and ground stone axe of material other than flint was used in Egypt from the earliest known predynastic times, without being able to state exactly when it was introduced or when it was given up.

But it is upon the pottery that Brunton primarily bases his description of the Tāsian civilization. The characteristic pots are deep bowls with a small, flattish base and angular sides narrowing towards the mouth. They have been divided into two classes according to their colour, brown and grey-black. Some have a "distinct slip" of grey clay. The brown variety shows as a rule no rippling of the surface, whilst it is more often found together with the grey-black.

[1] See *Mostag.*, pp. 2 ff. The name "Tāsian" is of course derived from the site Dēr Tāsa.

[2] See *Mostag.*, p. 31: "To decide definitely which of the implements should be classed as Tasian and which as Badarian is at present a matter of impossibility."

[3] S. Gabra, *Fouilles du Service des antiquités à Deir Tasa*, in *Ann. Serv.* 30, pp. 147 ff.

Polished red pottery is very rare; only three sherds of black-topped pottery were found. Of the other types of pottery known from Egyptian sites the black-incised beaker is claimed to be Tāsian. The origin and date of these pots have long been a puzzle to all concerned with Egyptian prehistory. One complete specimen was at last found in a well-dated tomb (No. 569) at Badāri,[1] and a sherd in the remains of a village there. Brunton's claim to date these beakers still farther back rests on their being found in "areas where celts are also found"[2] and must therefore be treated with some reserve.

Two other points remain to be discussed. The Tāsian tombs differ from the Badārian in one respect only. Some of them have niches scooped out of the west side of the grave, and three graves contained palettes described as "not of slate like all other Predynastic palettes, but of alabaster or limestone."[3] This statement is possibly due to an oversight. Limestone palettes are characteristic of Ma'ādi,[4] and it seems very probable that palettes were made of this stone in places where slate was not easily available. One slate and one alabaster palette were also found at Tāsa.

To sum up the little we know about Egypt's earliest predynastic culture, we may safely say that it belonged to a people which interred its dead in cemeteries. The tombs were more or less oblong holes in the ground, some with niches to accommodate the tomb-furniture. This shows the Tāsians to have been on a higher cultural level than the much later inhabitants of Merimda, who, like their Mesolithic forefathers, still interred their dead inside their houses near the fireplaces. Of the dwelling-places of the living we know nothing, and of their material possessions only what the contents of their tombs tell us. Their flint industry was, like that of the Badārians, a rough core industry using local surface flint. They probably used axes made of various rocks with a ground cutting-edge. Their pottery was mostly brown and grey-black; some of it has a "rippled" surface. A double conical form is characteristic of it. They knew already how to produce polished red ware. As *Mostagedda and the Tasian Culture* was published before Mr. Lucas had made known his experiments with black-topped pottery, the excavator was astonished to find polished red ware, whilst he took the three black-topped sherds for granted. If these are really Tāsian we have a *terminus ad quem* for the introduction of this ware. Unfortunately, we do not learn from Dēr Tāsa whether the technique which produced it was invented in Egypt or was brought thither ready-made. The fact that down to the New Kingdom people from Nubia enter Egypt who are in possession of a black-topped pottery similar to the prehistoric variety makes it likely that the first known specimens were brought to Egypt from the same regions, especially as over a long period the Nubian cultural complex as a whole—manner of interment, flintwork, stone axes, and pottery—is similar to the Egyptian prehistoric. This is one of the grounds for believing that Egypt's earliest population came from the South. The fact that Lower Egypt did not manufacture black-topped pottery is another indication that the North lagged behind in cultural development.

B.—*The Badārian*

With the next stage in the unfolding of Egyptian civilization we are on much firmer ground. Though the Badārian is still known from one excavation only, and Miss Caton-Thompson warns

[1] *Bad. Civ.*, p. 3; pl. 9, 27; pl. 26.

[2] *Mostag.*, p. 29.

[3] *Mostag.*, p. 25, pl. 26.

[4] O. Menghin and Mustafa Amer, *The Excavations of the Egyptian University in the Neolithic Site at Maadi: First Preliminary Report* (Season 1930/1), p. 59.

us expressly of the dangers of generalizing from a single site, yet the excavation of Badāri seems to have been executed under a specially favourable star. At Hammāmīya a stratified site was found which settled the position of the Badārian as being earlier than any other culture then known. This site was supplemented as to material evidence by the finds from the large cemetery.[1] Though the Hammāmīya site was not a regular dwelling-place, but something in the nature of a temporary encampment, it contained a wider range of flint industry than did the tombs. Its industry was a rather rough one, using surface nodules, although a much better variety lay *in situ* in the limestone cliff on the spot. This peculiarity makes Miss Caton-Thompson suggest that the original home of the Badārians may be looked for in an area outside the chert-bearing limestone regions. "Now," she continues, "in the eastern desert these limestones cease south of latitude 25° where we pass from Eocene to Cretaceous rocks. In the western desert the boundary is farther south. On the other hand, the tertiary limestones extend unbroken from this point north, right away to the Mediterranean, and may be followed on north-eastwards into Palestine."[2] This is another reason for believing that these early settlers came to Egypt from the South.

That flint tools were made on the spot is shown by the large amount of refuse that has been found. The most characteristic implement is a small push-plane or steep-ended scraper, which Miss Caton-Thompson thinks had its use in leather tanning. Besides this the bifacial sickle-blade with denticulated edge, the saw made in a similar technique, and the arrow-heads must be mentioned. The arrow-heads are either winged or leaf-shaped, and show Badārian flint workmanship at its best.

That the Badārians used pecked stone axes with ground cutting-edges is, as has already been pointed out, a mere assumption. They knew the use of copper, whilst nothing has been found so far to show that the Tāsians were already in possession of it. Their slate palettes for grinding the malachite and red ochre which they used as cosmetics, their ivory carvings—spoons, cylindrical vases, bangles and even sculptures—show a high degree of accomplishment. But their best achievement was certainly their pottery. It is mainly black-topped. A considerable number of pots have a surface wholly or partly decorated with a fine or coarse rippling. This special feature was first described in *The Badarian Civilisation*. The finer Badārian vessels are of a thinness and excellence of manufacture unsurpassed by Egyptian pottery of any age, yet in shape they are still primitive. They are more or less open bowls, some carinate, some globular, and some ovoid; more developed shapes are very rare.

The black top surmounts either a red pot, as is usual later on, or a brown one. Brunton states that he has picked up a few sherds of black-topped brown pottery "in the great Early Predynastic town at Hierakonpolis."[3] In addition to the black-topped classes of Badārian pottery, the excavators distinguish a polished red, and several varieties of brown pottery. The rough brown is the one that shows most affinities with the Tāsian, though the typical Tāsian shape seems to be absent.

Some of the pots are decorated on the inside with patterns made by burnishing lines, and mostly simple in character, a branch-like design being the commonest. This mode of decoration survived into later times and is found in pots from Naḳāda. Pot-marks are extremely rare. One sherd excavated below the breccia at Hammāmīya had a cross scratched on the surface with rough lines.[4]

[1] Described in *Bad. Civ.*
[2] *Bad. Civ.*, p. 75.
[3] *Bad. Civ.*, p. 21.
[4] *Bad. Civ.*, pl. 76, No. 278. The object is now at University College, London.

Three small figures of women were found in the tombs, all different in type. Two of them are of clay, one being of polished red pottery, the other unbaked and much ruder.[1] Both represent young women, the polished one having a freedom of movement unknown to later Egyptian art. The pottery one has lost its head and part of its legs; the unbaked one is perfect except for the breasts, which are broken off. It has no defined legs, but ends in a sort of peg; the arms are not represented. This is a type known from later Egyptian tombs. The much more carefully executed statuettes from Ab'ādīya, Tombs B 83 and B 101, which show more naturalistic details, are also without arms.[2] The female jug-bearers from the famous Naḳāda tomb 271 end in pegs and have no arms. This armless type also occurs in countries outside Egypt, in the eastern Mediterranean.[3] The third figure is of ivory, and has been restored from fragments; it represents an older woman with an enormous head, large eyes and nose, and hanging breasts. All three figures, having been placed in graves, certainly must have had some religious or magical significance for their owners which escapes us. We cannot connect them with any goddess known to us from prehistoric or historic Egypt, and they therefore do not help us much to ascertain the religious beliefs of the Badārians. The animal burials and animals buried with the dead show us another aspect of Badārian religion. Three tombs containing some sort of bovine were found in one area, and a tomb containing a dog or jackal in another area; Brunton also writes of sheep and goat burials. Thus animal worship in Egypt goes back as far as the Badārian age, never to die out as long as Egyptian religion was practised. It is worth remembering that similar animal burials have been found in Nubian cemeteries of the B-group or even later.

There is not much more that we know or can deduce with some degree of certainty about the economic situation of the Badārians. Some sort of agriculture they had, but we do not know what species of grain they cultivated, or of which fibres they made their yarns. These, as we are told by Mr. T. Midgley,[4] are not flax, but are in too decomposed a state to be identified. The oil in use was castor oil (*Ricinus communis*) and may have come from the wild plant. The most glaring example of our ignorance is that we cannot even say whether the Badārians were already sedentary in the Nile valley, or whether they were still nomads or semi-nomads, cultivating their little patch of grain in one place one season and in another the next. The camp at Hammāmīya seems to point to a life that was still at least half-nomadic, but on the other hand one is inclined to think that the Nile valley, where grain can be sown year after year in the same plot of soil, would go far to make people abandon their nomadic state of economy. Be that as it may, as long as we know nothing about Badārian houses or the plan of their villages this question must remain undecided.

The Badārians certainly possessed herds, of cattle as well as of sheep and goats, as the remains found by Brunton prove. Unfortunately the race of these animals cannot be determined, so that their origin cannot be closely ascertained. Yet we know that neither sheep nor goats are indigenous to Northern Africa, and since there are no wild ancestors of these animals in that part of the world, they must have been domesticated elsewhere, in districts which had and still have an undomesticated population of these animals, namely in Western Asia. As to the origin and

[1] *Bad. Civ.*, pl. 24, 1-3, pl. 25, 3-4 and 6-7.
[2] *Diosp. Pa.*, pls. 5, 6.
[3] Cf. Hawkes, *The Prehistoric Foundations of Europe*, pl. 3, B.
[4] *Bad. Civ.*, p. 67.

migration of the various species of sheep we are well informed through the work of M. Hilzheimer [1] and L. Adametz.[2] From Hilzheimer we know that the oldest race of sheep known in North Africa was probably the short-tailed one with a mane. Its origin was in Persia, and it is still living today in central Africa. The other race, which came to Africa somewhat later, is the long-legged sheep (*Ovis longipes Fitz*). Its original home was in the eastern part of Western Asia. From pictures of this species of sheep which occur on the decorated pottery we know that it was the one kept by the Naḳāda II people, but we know nothing of its existence in Egypt before that period. Yet one thing is certain, namely that none of these races of sheep can have reached Egypt by way of the Delta. Sheep are easily affected by damp, so that a passage through swamps would be impossible for them. They are the animals of nomads who are desert dwellers. Narrow straits of the sea, such as those at Aden, would, however, hardly form an insuperable obstacle; we know that nomads find means to cross even large and turbulent rivers with their flocks.[3]

That the flint industry of the Badārians was a local one using surface flints has already been mentioned, also that it shows a low standard of workmanship. All their other industries seem to have been local. We cannot say for certain whether they had stone vases, for the fragments found came from surface rubbish. The ivory used by them was elephant ivory,[4] which may have been either local or imported from the South. Whence they obtained copper we do not know. They used turquoise, but we do not know whether it came then, as later, from the Sinai Peninsula. The shells that they used as ornaments were from the Nile and the Red Sea, not from the Mediterranean.

C.—*Naḳāda I*

The Badārian civilization was followed by that of Naḳāda I. Again we cannot ascertain whether this was a development on the spot, or whether it was brought in by fresh groups of population reaching Egypt from the South. At Hammāmīya there is a disturbed stratum between the Badārian occupation and that of Naḳāda I, but that does not necessarily mean that it was caused by invaders, for feuds between neighbours might have had the same effect. Thus the only available stratigraphical evidence leaves us in the lurch at this point. The other excavations yielding material for the study of the Naḳāda I civilization have provided no evidence of earlier culture. They were made long before the existence of the Badārian culture was known, and no object or group of objects was found that can be assigned to the Badārians on typological grounds. It is perhaps most reasonable to assume that there was a development of local elements as well as an influx of newcomers from the South. As we know that in historic times groups of a population nearly akin in civilization to the early predynastic Egyptians frequently invaded Egypt from the South, we can hardly deny that similar movements took place at an earlier date. In the historic period measures were taken to keep out these barbarians; we know nothing of the social structure of our prehistoric Egyptians, but we could not maintain that it was already sufficiently strong and well organized for them to protect their border against a common enemy. Moreover, where were their borders? That, of course, we do not know. From our scanty

[1] *Nordafrikanische Schafe u. ihre Bedeutung für d. Besiedlung Nordafrikas*, in *Zeitschr. f. Säugetierkunde* 3, p. 268.

[2] *Herkunft u. Wanderung d. Hamiten erschlossen an ihren Haustierrassen* (*Osten u. Orient*, 1. *Reihe: Forschungen*), Vienna, 1920.

[3] Hilzheimer, *op. cit.*, p. 272.

[4] Brunton does not mention hippopotamus-ivory.

knowledge of early Nubian prehistory one is inclined to think that the Nubian A-Group was contemporary with early Egyptian prehistory. To date this culture is indeed very difficult, for many characteristics that occur only early in Egypt were retained in Nubia to a much later date. Rippled pottery, axes of igneous stone, primitive types of graves, all turn up again and again in different Nubian civilizations. Yet as long as these civilizations are totally unmixed with later Egyptian features as they are in the A-Group, I see no objection to their being placed in the prehistoric period. We have no reason to assume a political frontier between them and Egypt. As the physical nature of Nubia makes it impossible that it should have been the home of all these peoples, invading Egypt again and again, we are confronted with the question of their ultimate origin. To this we have no answer. For if we look for evidence of a similar culture or cultures in regions not too far distant, we are again confronted with a blank. The one thing that seems clear is that these earliest invaders did not stream northwards through the Nile valley only, or rather along the edges of the Nile valley, on what is now the High Plateau of the desert. In this connection it is indeed fortunate that their flint industry makes them so conspicuous. What has been called the Fayyūm industry has been found in various oases of the Libyan desert.[1] Here again the dating offers great difficulties, and we can only assume that in post-Naḳāda I times this industry would have shown an intrusion of later Egyptian industries of some kind. But as we know so very little about all this I will drop the subject rather than advance an unwarranted hypothesis. It is indeed tempting to try to link all these bifacial industries with the Mesolithic or Neolithic industries of South Africa, but this also seems to be much too dangerous, since our knowledge is almost non-existent. For the time being, therefore, we must content ourselves by saying that these repeated invasions of foreigners from the South, which we know to have taken place in the historic period, had probably already begun in the earliest period of Egyptian predynastic history that we can trace. As for the Naḳāda I people, though, as we shall see, they show definite progress as compared with their predecessors, we cannot ascertain their origin more definitely than that of the early Badārians and Tāsians. How far northwards these populations extended is also unknown to us. In the Nile valley itself, on the low spurs of the desert, Dēr Tāsa is the northernmost site from which we have any evidence of the presence of prehistoric people earlier than those of Naḳāda II. It has already been pointed out that, probably, Fayyūm A is contemporary in civilization with Naḳāda I. Thus it would seem at present that the Nile valley itself north of Asyūṭ was not inhabited prior to Naḳāda II. Perhaps that part of the country was still in a condition that made it unsuited to human habitation. The Fayyūm with its large lake will have been better irrigated and therefore preferred.

The civilization of Naḳāda I is a development in the same direction as that of Badāri. Most of our knowledge of it has been obtained from Petrie's excavations at Naḳāda and Diospolis Parva, and to a smaller extent from his work at Koptos, supplemented later by excavations of the Egypt Exploration Fund and of the British School too well known to need enumeration. De Morgan's "excavations" somewhat earlier than Petrie's are of much less interest owing to the lack of system in field-work and publication. Yet to him belongs the credit of first pronouncing the Naḳāda culture to be the prehistoric civilization of Egypt, at a time when Petrie thought it to be of the First Intermediate Period. This mistake of Petrie had two curious consequences. One was that people thought it unnecessary to read his publication of Naḳāda.[2] Knowledge of

[1] Paul Bovier-Lapierre in *Précis de l'Histoire d'Égypte*, p. 42.

[2] *Naq. Bal.*, 1895.

the material was therefore based on a few stray pieces that had come to a few museums outside University College, London, and the Ashmolean, Oxford, and a few statements, some of them erroneous, repeated again and again. The bulk of the material and its overwhelming importance both remained hidden. The other consequence was that the material when brought to Europe was not appreciated, and therefore remained mostly in Petrie's own collection at University College, or at the Ashmolean, to which a representative collection was given. A few pieces went to the Egyptian Department of the Berlin Museum, and have since been well published and thus rendered accessible.[1] It has been my privilege during the last years to rearrange this material at University College, and to make a card index from it, arranged in tomb groups. This card index also includes the Oxford material, which I was allowed to work on and to photograph, and the published Berlin material. Should any of my readers know of material from Naḳāda, Diospolis Parva, or Koptos in any other museums or private collections, I would be thankful if they would let me know, so that I may make the card index as complete as possible.[2] As most pieces were marked clearly on the sites, it is not very difficult to identify the material. I could find no means, however, of ascertaining all the original contents of a given grave, with the exception of those few of which drawings were given in Petrie's original publication, and these do not seem to be always quite accurate. Naḳāda is the largest prehistoric cemetery that has been excavated in Egypt. It consisted of three different areas. The most important contained 1953 graves, numbered consecutively from 1 onwards. Then there is area B, with 137 graves numbered B. 1 etc. and area T., with 103 graves numbered T. 1 etc. Thus the whole excavation at Naḳāda brought to light nearly 2200 tombs. Of these 138 have been published, but of only 24 have drawings been given, these being in the original publication.[3] Later on some objects of these tombs, with their respective tomb-numbers, were published in *Prehistoric Egypt*. On one of the last plates (51) will be found a table of those graves that could be sequence-dated. The *Prehistoric Egypt Corpus* repeats to a great extent the drawings of the pottery and slate palettes from *Naqada and Ballas*, and adds the tomb-numbers to a considerable part of them; this has been of material assistance in checking the objects.

The adjoining cemetery of Ballāṣ was excavated by Quibell at the same time that Petrie was working at Naḳāda. Unfortunately the tombs there were again numbered beginning with 1, and without further identification-marks. There were about 900 graves, and only 36 of them were drawn. With the exception of these and a few objects definitely marked "Ballas" in the publication it seems to be hopeless to try to separate them from Naḳāda 1 to 900. Some objects bearing the letter "Q" seem to come from Ballāṣ, but this letter was also written on objects from Naḳāda which were excavated by Quibell when he had finished at Ballāṣ, and came to help Petrie at Naḳāda; the tombs dug by Quibell at Naḳāda all have numbers over 1000.

When, after some hesitation, I decided to publish some of the results of my study of the material, I was well aware that I was doing things in the wrong order, since I cannot yet publish the material itself, but in the present conditions this is the only course open to me. I hope the day will come when I can publish the whole material systematically.

[1] See *Die Altertümer*. When this catalogue is used, the author's wrong interpretation of Petrie's marking must be borne in mind. "T"="Cemetery T" and not "Town"; "S"="South Town."

[2] Please send communications to me, c/o The Griffith Institute, Ashmolean Museum, Oxford.

[3] A map of the different areas is found in *Naq. Bal.*, pl. 86.

My greatest surprise when I began to work was to find how copious was the material that came from the two towns at Naḳāda. Of these the "South Town" was the most important. It was Nubet, the city of the god Sēth. Petrie's map on pls. 1 and 1A of *Naqada and Ballas* shows the respective situation of the town and cemeteries. The temple of Sēth was situated in historical times on a spur of the low desert. We do not know whether it was preceded by a prehistoric temple. It dominated the entrance of a *wādi* running west. South of it, on the other bank of the *wādi*, was the prehistoric town of Nubet.[1] Part of it was built over in the New Kingdom. A short distance from there to the south-west, on a rising plain, stretches the great cemetery of Naḳāda, for generations the burial-place of the inhabitants of Nubet. The North Town lay north of Ballāṣ; it was the smaller one, and much less material was recovered from it. Whilst Petrie writes of mounds of ruins at the South Town, the archaeological stratum of the North Town was at most one foot deep. No bricks were found at the North Town, and Quibell therefore thinks that the houses must have been of wattle-and-daub. Children's burials are stated to have been found inside them. An axe of green stone and a slate axe were found there. University College possesses a beautiful pear-shaped mace-head, of hard white limestone, from the North Town.

Of the South Town a small map is published, covering a part of the town about 100 m. each way. This was only part of the original extent of the town; the mounds have been denuded, and partly built over much later. We see a few walls, built of small bricks of the same kind as those used to line the tombs, and therefore presumably of the Naḳāda II period, for we do not know of earlier brick-lined tombs. A pavement of bricks was found, and something that Petrie thinks was the city wall. That prehistoric towns had walls we know from the famous pottery fragment, published in *Diospolis Parva*, pl. 6 (B 83), showing a city wall with warriors behind it.[2] From the material recovered we know the South Town to have existed as early as the Naḳāda I period. There was pottery, mostly sherds, of all prehistoric Egyptian varieties from white cross-lined to decorated ware, also stone vases, spindle-whorls, bone harpoons, and a strong copper pin of the early Egyptian type with a loop made by turning back the upper end (pl. 6, 9). There was a bone figure of a Horus-falcon which proves that the town must have been in existence until protodynastic times, a fact which is borne out by some sherds of late decorated pottery. But the flint industries are the most striking parts of the material. There are not only a good number of "Fayyūm" types, but also an abundance of small flaked axes of the type that was published by Huzayyin, and is the most characteristic tool from Armant (pl. 5, 2). These at once call to mind a remark by Petrie that flint axes were the most characteristic implement of the Naḳāda people.[3] Unfortunately he called the axes "ovates," but a glance at the drawings of the Naḳāda publication elucidates what was meant. These axes are extremely rare in tombs. Evidently the idea of having to do manual work even in the Netherworld was not popular with these ancient Egyptians, and *shabtis* had not yet been invented. The material from the Armant settlement seems to make it clear that this type of axe belongs to the Naḳāda II civilization, and it will therefore be dealt with farther on. Let us turn to the "Fayyūm" types first. A

[1] The objects from Nubet were marked by Petrie "South Town," "Naqada town," or more often "S" only; some pieces are simply marked "Naqada."

[2] Ab'ādīya, grave 83 (S.D. 33-48).

[3] *Naq. Bal.*, p. 50: "We must conclude then that these ovoid flints . . . were the common domestic implements of the New Race people." Huzayyin states in *Cem. Arm.*, p. 207, that flaked axes are "one of the most important classes of the series and may even be taken as the 'type-tool' of the settlement."

small flint axe, polished and flaked, first aroused my attention (pl. 4, 3). I should have taken it to come from the Fayyūm were it not clearly marked "Naqada." Unfortunately its twin was not marked, and must therefore be ignored for these investigations. But there were other tools equally interesting: arrow-heads, triangular as well as winged, leaf-shaped points, planes, hoe-shaped tools, and celtiforms, even a broken sickle-stone (or one of the double-pointed saws ?), all worked bifacially in the shallow retouch technique which previously had been chiefly known from the Fayyūm (pl. 4, 4-7. 11; pl. 5, 6). No doubt was possible; this was the technique of the Naḳāda I people. This conclusion was confirmed by the flint industry from the Naḳāda tombs and by a small group of flints from the prehistoric town of Koptos which I found later in the Ashmolean (pl. 4, 8-10). As soon as I had arranged the Naḳāda material in tomb-groups, and had separated the dated tombs of the two Naḳāda periods, it turned out that apart from two atypical flakes in two Naḳāda I tombs and one doubtful twisted blade, all the flints of Naḳāda I were of the bifacial type. When inspecting the daggers and fish-tails more closely, I saw that they had been ground before flaking. This technique therefore seems to have been invented, or at least first used in Egypt, during the Naḳāda I period. But we have not to do merely with the invention of a new technique. The beautiful fish-tail lances and long dagger-blades that occur first during the Naḳāda I period cannot have been made locally. A few unpublished small cores now at University College, London, were found at the South Town, but no raw material that would account for the larger implements, nor has such material been found in any other settlement we know of. This implies that the larger tools were not made locally from flints that could be picked up in the desert, but that during Naḳāda I flint implements of the better kind were made outside the settlements. This is a fact of the greatest importance, for here we are confronted with the birth of industry itself. Flint quarries must have been discovered and exploited for the first time in the life of the Egyptian people, and workshops established around them where the quarried flint was shaped into tools. These tools were the product not of casual workers meeting a casual need, but of craftsmen skilled in their occupation, and they were produced for sale. We know of several flint mines on the outskirts of Egypt, but they have not yet been scientifically investigated, and those from Kharga Oasis are not yet published. This development of early industry must have had the most important consequences. An industry needs markets for its products, and tends to spread beyond local boundaries. It is the source of wealth beyond the bare subsistence-level, and the distribution of its products requires some sort of political order over a wider area than the settlement. I know that the creation of small states in Egypt is generally attributed to the need of some sort of order for the distribution of water over the fields, and the digging of canals. But, as we have seen, we have reason to assume that at the early time we are dealing with the Nile valley proper was not inhabited, and was much wetter than now, that even the desert bore trees and a certain amount of grass, and that therefore there may not yet have been a need of artificial devices for the distribution of water to irrigate the valley. The earliest known settlements in the Nile valley itself are some of the Naḳāda II period. That means that only then was the valley proper dry enough to permit human habitation. It was Sir John Myres who suggested during a discussion that it was falling water-level, leaving patches of the land dry which had previously been covered, that led to the invention of an artificial system of irrigation. So far as our present knowledge goes this system cannot have been introduced before the Naḳāda II period.

That there were many more settlements along the Nile valley in the Naḳāda I period than there had been during Tāsian and Badārian times follows from the fact that whilst both Dēr Tāsa and Badāri yielded material later than the periods named after them, no cemetery or settlement excavated before these two sites were dug, and containing objects of early Naḳāda I, has given us anything earlier than this period. It is, however, evident not only that there were then more settlements along the Nile valley than during previous periods, but also that these settlements were increasing in material wealth. Whilst the graves of S.D. 30–31 mostly contained one pot only, later graves contain whole series of pots and personal belongings. True, some of the Badārian graves also contained several pots and personal belongings, but their contents cannot be compared with those of some of the larger tombs from Naḳāda or Diospolis. Moreover, it is not flints only that show a great advance on their predecessors. The pottery evolved more complicated shapes. Slender vases, bottles, and tall storage jars now occur together with the bowls and saucers of an earlier period. Certainly the texture is no longer so fine or thin, but the beautiful Badārian pottery is now replaced by stone vases. We have seen that it is not yet certain whether or not the Badārians made stone vessels, since none have been found in their dated tombs.[1] But the Naḳāda I people had learned how to manufacture them. They are of alabaster and are cylindrical in form, with a rim like that of the Badārian ivory vases (pl. 7, 5). Ayrton and Loat, who found two cylindrical vases with rims, one of stone and one of ivory, in the same tomb at El-Maḥāsna, suggested [2] that this shape would naturally result from carving ivory tusks into vases, and was probably transferred from ivory to stone. In very rare cases basalt vases with small feet occur in graves of the Naḳāda I period, though by far the greater number found are of Naḳāda II (pl. 7, 7).[3] Yet these basalt vases are generally taken to be the characteristic feature of the earlier phase. It is not certain that the presence of basalt vases in Naḳāda I should be explained in the same way as that of the decorated pots of Naḳāda II type which also occur very rarely in tombs of the Naḳāda I period,[4] though it seems to me the best explanation. Were both these kinds products of a foreign people who had begun to establish trade relations with the Nile valley? Clay vessels similar in shape to that of these basalt vases have been found at Ma'ādi,[5] a foundation of the Naḳāda II period. A sherd of a similar pot, the small conical foot with part of the bottom and the lower part of the sides still adherent (see pl. 7, 4), was among the material from Nubet. Further evidence bearing on the provenience of the footed basalt vessels will be found in Part II.

Whilst the bulk of the Naḳāda I pottery developed on the same lines as the Badārian, there is one new feature that cannot be explained as a mere outcome of the earlier stage. At about S.D. 31 we find the first painted pots of the style Petrie has called the "white cross-lined." [6] This is the earliest painted pottery known to us outside Asia, indeed the only prehistoric painted pottery found anywhere in the old world for which a connection with Asia has not yet been traced. The vases painted are of polished red ware. The patterns are mostly geometrical, like those on the early pottery of Asia. Now and then scenes including men, or men and animals, are

[1] The broken stone vase found in a Badārian tomb at Mustagidda (Brunton, *Mostag.*, p. 39, grave 2004) does not prove anything to the contrary. The tomb was thoroughly disturbed, and the stone vase, as Brunton observes, is of a type found at Ma'ādi, i.e. of the Naḳāda II period.

[2] *Predynastic Cemetery of El Mahasna*, p. 27.

[3] *Preh. Eg.*, pp. 34 f.

[4] *Preh. Eg.*; *Corpus*, pl. 31, 10 G and 13 W.

[5] Menghin and Amer in *Anz. Wien*, 1930-31, pl. 21, 6-10.

[6] *Preh. Eg.*, p. 14.

depicted with a liveliness of movement and unconventional attitude which are absent from the painted pots of Naḳāda II as from most later Egyptian art. The motives taken from nature are purely Egyptian. Among the animals the hippopotamus prevails. It is being trapped and hunted by men or it is repeated in circles around the centre of the pot. Hippopotami and a horned deer (or perhaps an antelope) are indeed the animals most frequently represented. The deer or antelope was hunted with dogs which seem to have been bred for this purpose. On the well-known vase from the Golénischeff Collection republished by Scharff,[1] a man is seen leading four dogs by leads fastened to their collars. Scharff and Hilzheimer have been able to recognize in these dogs a Libyan greyhound, a species still nowadays used as a hunting-dog by Hamitic tribes of central Africa. The hunter on the white cross-lined pot seems to wear the sheath, and so may the man represented on the unique vase showing two agitated human figures,[2] now one of the treasures of the University College collection. The other with the long, floating hair and without arms is surely a woman drawn in a primitive way showing some parts of the body outside it. They are perhaps performing some sort of ritual dance; the man is raising his hands above his head, as are the men on a likewise unique vase in the Cinquantenaire Museums[3] and on a decorated vase of the Naḳāda II period, the fragments of which are now in the Ashmolean.[4] Scharff describes a feather on the head of the hunter of the Golénischeff vase; the men on the vase at Brussels have twigs in their hair.

These pictures of men and animals suggest that hunting was still one of the main resources in the economy of the Naḳāda I people, though these vases being tomb furniture may represent a somewhat earlier stage in the development of their society.

Together with the Golénischeff vase Scharff publishes another vase of the same type, now in the Berlin Museum. Several animals are represented on it, one of which Scharff at first thought to be the animal of the god Sēth. The form of the head and muzzle, and the upright, pointed ears suggested to Scharff this still unexplained creature. When, later on, he discovered that the tail of the animal was not raised, as is usual in representations of the Sēth animal in the historic period, he dropped his first assumption,[5] and describes the animal as a common ass. Hilzheimer supports this second explanation. If this view is correct we have here one of the first pictures of an ass known to us in Egyptian art.

A famous plate from Badāri shows two looms, one presumably vertical, the other horizontal. Brunton dates this vase as "S.D. probably 37–38, but possibly 37–43."[6] The late date is determined by a small polished red pot, P 82c, found together with it, and which the *Corpus* puts at between S.D. 43–59. This outweighs evidence from the date of another pot (B 55b), also found in the same grave, which is given as of S.D. 35, 36. I think the motive of the two looms on the white cross-lined pot supports Brunton's late date. Petrie gave this pottery a very short range in time, from about S.D. 31 to 36; this view will have to be modified.

In Naḳāda tomb 1449 a decorated pot of type D 10g was found together with two of the cross-lined variety, C 1 and C 6.[7] Unfortunately I could trace none of these pots, but I know of four

[1] *Vorgeschichtliches zur Libyerfrage*, in *ZÄS*. 61, pp. 16 ff. [2] *Preh. Eg.*, pl. 18, No. 74.

[3] A. Scharff, *Some Prehistoric Vases in the British Museum*, in *JEA* 14, p. 261, pl. 28. The four smaller figures represented are women.

[4] *Corpus*, pl. 37, No. 77, from Diospolis Parva.

[5] *Die Altertümer*, I, p. 118. [6] *Bad. Civ.*, p. 51, grave 3802.

[7] This is the only instance of such a combination mentioned by Petrie in *Preh. Eg.*, § 32. The tomb was undisturbed.

others from the same tomb. One is the fragment of a black-polished vase, type F 85a, the other three are black-topped. One, type B 92b, is a bottle, the other is a fragment of a double libation vessel, type B 16, only one bowl and the adjacent part of the connecting arm being left. The third, now in the Ashmolean, is the most interesting of all. It is of type B 35h, but with a decoration in relief the meaning of which at first puzzled me a great deal (pl. 3, 1-4). It is published by Capart,[1] who explains it as being a head on a pole representing the body of a man. The two curved ascending objects which are fastened near the top of the pole he explains as the arms; the other two, which start from two circular knobs near the lower end of the pole, he takes to be the legs. He says: "The man will be clasping the whole vase in a position that is difficult to imagine and can only be explained by the *naïveté* of the primitive artist." But surely it cannot be explained in this way. A head on a pole is indeed there, but what projects from the pole underneath the head is a pair of cow-horns. The other pair of objects is much more difficult to interpret, and were it not for the multiple vase from the foundation deposit of Tuthmosis III at Koptos (fig. 3), and a vase of unknown provenience with the same motive (see pl. 3, 5-6), both in the Ashmolean, I should probably not have found the explanation so soon as I did. In both the later vases, as well as in the prehistoric one, the same pair of objects in relief begins immediately underneath the rim of the vase; but in the later pieces they end in hands, and these hands support a pair of breasts. The two circular protuberances in which these "arms" end on the black-topped pot must be explained similarly as breasts; the supporting hands are not rendered in detail by the primitive maker. In the later vases the head and horns on the pole are replaced by a Hathor head, in the Koptos vase by a Hathor cow between each two of the joined vases. But the attitude with hands supporting the breasts is not the usual one of Hathor, nor can we assume that this goddess of the Naḳāda I people was Hathor, for nothing is known of Horus as early as their time.[2] We do not know the name of this fertility-goddess who, though connected with cow-horns, is represented in human shape. Although this vase is unique, we fortunately possess more representations of the goddess from Naḳāda I on two vases from Diospolis Parva. They were found in tomb B 101 of Ab'ādīya (S.D. 34), and U 179 of Hu, both now in the Ashmolean.[3] On each of these vases is represented a pair of arms in relief, ending with breasts in the same way as on the vase from Naḳāda. The pole with the cow-horns and the head on top might well be a representation of the fetish or sacred image originally venerated by the Naḳāda I people, for, in spite of the decorated pot in tomb 1449

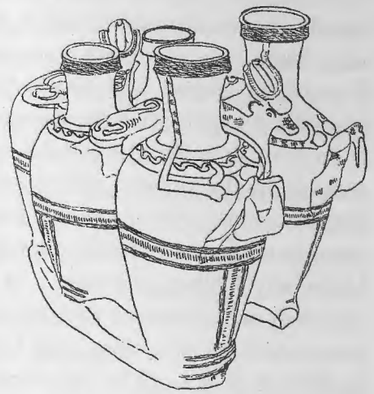


Fig. 3. From Petrie, *Koptos*, pl. 14, No. 7.

[1] *Les Débuts de l'art en Égypte*, pp. 117 f., fig. 88.

[2] Is she the goddess "Gold," a surname of Hathor which Sethe in *Urgeschichte*, § 154 says is a very old one? The name of the town of Nubet was written with the sign for gold also.

[3] One of them is figured in *Corpus*, F. 66, the other in *Diosp. Pa.*, pl. 5. Both are headless, but have the arms holding the breasts. There is another vase from Diospolis of black pottery, representing a woman with head and hanging breasts, but no arms, and thus not in the characteristic attitude of the fertility-goddess. I therefore do not discuss her here. Capart takes the arms on the black-topped vases also to be legs.

of Naḳāda, I agree with Petrie in dating it to the earlier period. Nothing but the decorated vase D 10 G in the contents of this tomb points to a later date, and the pot with the arms from tomb B 101 at Ab'ādīya agrees with it. Nor is this the only case of a decorated vase found between S.D. 30 and 38. Petrie mentions three more instances in *Prehistoric Egypt*. The first, a sherd, D 13W, of S.D. 31, is now in the Ashmolean; it is from tomb 1766, but I can trace nothing of the remaining contents of the tomb, and without them the sherd cannot be dated.[1] The second, the pot D 63c, could not be traced, but the third, D 29A from tomb 1426, is again in the Ashmolean. With it belong six black-topped pots, mostly with marks; three of these are now in the Ashmolean, the other three in University College, London. The grave also contained two ivory tusks decorated with incised bands of diagonal lines, each having three holes for suspension near the top.[2] The absence of the large rough jars in this tomb, together with the abundance of marked black-topped pots, speak in favour of this grave being no later than Naḳāda I, although with S.D. 37 we are very close to the beginning of the second Naḳāda civilization. But there are two more decorated pots of the earlier period which, although not mentioned by Petrie in this context, seem to me to go far to prove that the decorated ware was already known during Naḳāda I, for both of them are evidently imitations of the true decorated ware made by a potter who was accustomed to the white cross-lined style. One of these pots, D 72 of the *Corpus*, and now in the Ashmolean (see pl. 6, 11), is in shape and style a vase of the cross-lined variety, but the decoration is executed in red paint on a buff slip with which the pot is covered to make it resemble the buff clay of the decorated ware. Unfortunately it is not possible in the present circumstances to make an analysis of the clay of this pot, but such an analysis would probably reveal that it is of the inferior material of the Naḳāda I period.[3] Another example of pottery which, though painted in red, is of the white cross-lined style, is now in University College, London. It was found in tomb 1649 at Badāri, and is a libation vessel, originally with three or four cups, only one of which is intact.[4] In the same grave was a white cross-lined pot of *Corpus* type C 49 k,[5] dated to S.D. 31–34. The pot from Naḳāda, tomb 273, is dated S.D. 32. The leg of an ivory female statuette is all that I have been able to trace of the other contents of tomb 273. It seems to me very unlikely that these isolated examples of pots painted in red on a buff slip, and evidently imitating the decorated pottery, could have been made without knowledge of this technically superior ware, and as long as nothing in the tombs containing the real decorated ware requires to be dated later than Naḳāda I, I shall follow Petrie's suggestion and accept the early date for these pieces, though I know that more material must be forthcoming before this assumption can be verified and that it may have to be abandoned. What seems to support this date is that the decorated pots found in the Naḳāda I tombs are of the net pattern which we know to be the earliest of the decorated style. (The pot in the British Museum painted in white with a pattern of the decorated style and published by A. Scharff[6] has turned out to be partly a forgery: the paint is modern, although the vase is authentic.) This tends to show that those who painted in white tried to copy the decorated ware, but were

[1] I should be especially grateful for any news about objects from Naḳāda bearing the number 1766, or any of the pots mentioned above as "not traced." Letters should be sent to me at the address given p. 26, n. 2.

[2] One is published in *Naq. Bal.*, pl. 64, No. 95.

[3] Analyses of the different kinds of Nile mud and clay used in the fabrication of the prehistoric Egyptian pottery are to be found in *Cem. Arm.*, pp. 50 ff.

[4] *Bad. Civ.*, pl. 40, 72k.

[5] See *Bad. Civ.*, pl. 38.

[6] *Die Altertümer*, I, p. 26.

unable to imitate the style, and that those who painted in red are not known to have tried their hands on the white painting; i.e. there was a demand on the part of the white-painting people for the decorated ware, but not *vice versa*.

A word remains to be said about black-topped vases with decorations in relief. They are extremely rare; I know of no example datable with certainty to a period later than Naḳāda I, though such decorations occur on "rough" and decorated pots later on. The most famous example is the sherd with the "Red Crown" of Lower Egypt in relief, now in the Ashmolean. It comes from Naḳāda, tomb 1610 (S.D. 35–39). It has been the occasion of much speculation; it will be dealt with when the religious beliefs of the Naḳāda I people are discussed.

Pot-marks are frequent during this period. Most frequently they are mere scratches, often very untidily executed, which have been explained as owners' marks. But at this time animals are also found among the marks. Petrie tells us[1] that these signs are commonest from S.D. 30–48. Interest in them has greatly decreased since the view, originated by Petrie, that we must recognize in them the beginning of writing was dropped. But they are interesting from another point of view. Some of the scrawls we find on them constitute very early evidence of the knowledge of certain Egyptian gods. It is impossible to decide whether the hippopotamus we find among them has anything to do with the god Sēth (pl. 6, 8). We have seen that it is a favourite motive on the white cross-lined pottery, but its presence in tombs may also be regarded as a hunting charm, for we cannot tell when it first became an animal of Sēth. The case is different with the emblem of Mīn, which is found more often as a mark. The earliest published example is on a rough pot[2] from Naḳāda, tomb 387 (of S.D. 30–34), now in the Berlin Museum. No other material from this tomb is known to me. The pot itself is one of the rough store-jars of *Corpus* type R 84 D or 85 P, which are common in tombs of Naḳāda II, but were, it seems, not in use earlier. As this is the only occurrence of Mīn's emblem claimed to be from Naḳāda I, I hesitate to ascribe his worship to this early period, though it is of course possible. The sign is fairly often found scratched on pots of the Naḳāda II period, when it is common also as a standard on ships on the decorated ware. I hesitate still more to take the crossed lines which are very common as pot-marks to be the crossed arrows of the goddess Neïth. We have seen that they first occur at Hammāmīya, where they are of Badārian date. But in Naḳāda II, when we find them represented on a pole, as they are on the standards of the decorated pottery, I am inclined to take them as the symbol of Neïth. Besides the signs mentioned we find scratched on the pots the elephant, the sheep, trees, and in one instance a ship. Tree-worship may go back to the Naḳāda I period.

It is difficult to see why the white incised pottery has so persistently been associated with the Naḳāda I period. A glance at the coloured frontispiece of Petrie's *Diospolis Parva* shows that only two of the fifteen pots mentioned there belong to a date earlier than S.D. 38. (In the *Corpus* the sequence dates are omitted.) I cannot trace the other contents of either of the tombs from which the two black incised pots said to be of Naḳāda I have been taken. One of them is a saucer dated to S.D. 33, different in shape and pattern from the usual type, the other one is of S.D. 35.[3] There seems to be no relation between this type of pottery and the Badārian beaker, which, though similar in the technique of its decoration, is different both in the style of

[1] *Diosp. Pa.*, p. 29.

[2] *Die Altertümer*, I, p. 168.

[3] In *Diosp. Pa.*, p. 10, § 12, Petrie gave the sequence dates of all the incised pots then known to him.

its designs and in its shape. All these pots have been said to be foreign importations. As the technique has spread over a wide area, and can be found on pottery of very different primitive peoples, it seems wiser at present not to base far-reaching hypotheses on it. I know of one example where this technique of incised lines filled with white paste is applied to an ordinary polished red pot (pl. 6, 7); it comes from the famous tomb Naḳāda 1401, which contained disk-shaped mace-heads together with a pear-shaped one, and is generally dated to S.D. 42. But as the inventory [1] mentions a stone vase with a cord pattern round the neck, it is probably early dynastic. The whole problem however belongs to Naḳāda II, and is therefore not treated here.

The mace-head of this period, if a mace-head it be, is the disk-shaped one. Petrie at one time was of opinion[2] that the limestone objects of this shape painted with patterns of stripes and dots belonged to some sort of game, in which they were twirled on top of a staff (pl. 7, 1-3). This opinion has received some confirmation from Emery's discovery in the tomb of Ḥemaka at Ṣaḳḳārah of a set of beautifully decorated disks and short staves which he also explains as a game, perhaps having some magical purpose. Even when the discoid so-called mace-heads are made of hard stone, this is frequently of variegated colour, red breccia or diorite; their holes are often much too small to admit a handle strong enough for a weapon. Petrie suggested [3] a pliable handle made of hippopotamus skin. But handles have been found in connection with disk-shaped "mace-heads," and they were of ivory and horn.[4] Thus we do not really know what these disk-shaped objects were used for. Perhaps we have to do with two different kinds of objects similar in shape, one a weapon, the other not, but pending a more thorough investigation all this remains guess-work. An object of this shape has been found in the Fayyūm A culture.[5] Miss Caton-Thompson also is doubtful about its use, and thinks that it may have been fitted into a digging stick; this is a third suggestion.

Metal was still very rare. So far as I know only pins of copper have been recovered, made of wire, their heads turned back in loops (pl. 6, 9). Petrie thinks [6] they are "prick points," as we know of no Egyptian garment that needed to be fixed with a pin.

More interesting are the ivories. On some of the ivory combs and hairpins animals are represented. Commonest is a bird which looks like a young chicken, but there are also ostriches and quadrupeds. Among the latter is the remarkable little figure from Maḥāsna [7] which is generally taken to be the earliest representation of the strange Sēth-animal, though it has no tail. A comb [8] from another grave in the same cemetery is probably decorated with the same animal, but the beast has lost its head, and as it has no tail either its identity is not certain. This and the animal on the white cross-lined pot in Berlin which Scharff now takes to be an ass on account of its dropped tail (see p. 30 above) form the only evidence offered in favour of the opinion that Sēth was already worshipped during Naḳāda I. This may be so, but further evidence is needed to make it certain.

Human statuettes in ivory are extremely rare. Here also I am afraid I have to destroy a widely held belief, namely, that the so-called "bearded man" idol belongs to the Naḳāda I period. The only well-dated figure of a man of this time was found in tomb H. 29 at Maḥāsna.[9] This

[1] *Naq. Bal.*, p. 28. [2] *Loc. cit.*, p. 35. [3] *Preh. Eg.*, p. 22. [4] *Diosp. Pa.*, p. 33, pl. 5 (B 86).
[5] Caton-Thompson and Gardner, *The Desert Fayum*, p. 33, pl. 30. [6] *Preh. Eg.*, p. 26.
[7] Ayrton and Loat, *Pre-Dynastic Cemetery at El Mahasna*, pl. 12, No. 2. [8] *Op. cit.*, pl. 17, No. 2.
[9] *Op. cit.*, p. 26, pl. 11, No. 1.

is the same tomb in which the little "Sēth-animal" occurs together with a white cross-lined pot, the edge of which is decorated with figures of hippopotami. The man is slender, and has a heavy jaw which, as the excavators say, "seems" to be covered by a *broad* beard; it certainly has not the pointed beard of the "bearded man" idol, which is of Naḳāda II. He is naked and wears the sheath, thus confirming the view that this curious garment was worn by the Naḳāda I people, as has been thought likely from the figures represented on the white cross-lined pottery. The type with the pointed beard should rather be called that with the pointed chin, for it is as often female as male. It does not occur before S.D. 38. The well-known ivory women which Petrie found arranged in a row in tomb 271 at Naḳāda, and which are of this date, are the earliest examples of this kind. They carry water-jars on their heads, and are without arms, and each ends in a peg instead of legs.[1] A similar figure of a woman, undated, was excavated by Brunton at Dēr Tāsa.[2] It has no water-jar (resembling in this the figurine made of vegetable paste and moulded upon a reed which was found also in tomb 271 at Naḳāda [3]), and is now in the Ashmolean. It is painted black on red. From the same tomb comes the little slate amulet with a human head, also in the Ashmolean. The face is very summarily rendered, and consists almost entirely of two huge eyes indicated by inlaid rings of ostrich egg-shell. The chin is pointed. It is exactly this type which is generally taken to represent the bearded man idol. But as the breasts are given, again by rings of ostrich egg-shell, this amulet certainly represents a woman. I know of no early figurine of a man where the only features to be represented are the eyes and the breasts, and it seems to me most unlikely that it should have been made. Yet some of these figurines of Naḳāda II certainly represent men, and in them the beard is clearly represented, as in the head of a comb from Naḳāda tomb 268 (S.D. 50).[3] They occur most often in pairs, which are never quite alike. So in the Naḳāda tomb 1757, which contained two slate idols and a bone one,[4] now at University College, London. They all have pointed chins and inlaid eyes, yet they all differ slightly from each other. The bone one has a necklace, and I am inclined to take it as a woman, whilst the slate ones may be men. I have been unable to trace any pottery from this grave, only some more "magic" slates and bone beads, none of which gives a precise date. There may have been a fourth amulet with a human head. This is not the only case where two of these very stylized human figures, made of different materials, occur in one tomb. In the Naḳāda tomb 1329, two peg-shaped idols were found, both with long, pointed chins (pl. 5, 11-12). The eyes were inlaid. One of these figures is of ivory and has two incised lines round its waist, the other is of alabaster. Again the question arises whether this differentiation indicates difference in sex. The primitive artist was evidently very little interested in the faces of these idols, which he made without those features which seem to us essential. But if he made differences at all in two similar idols he certainly wanted to convey a meaning. This leads us to some other ivory objects which have been found in these tombs as early as the time of Naḳāda I; I refer to the ivory tusks, which are usually in pairs. One of them is always solid, the other is hollowed out for about half its length (pl. 6, 4-5).[5] The earliest known pieces are plain; later on

[1] The upper part of one of these figures is now in the Berlin Museum, and has been published by Scharff, *op. cit.*, pt. II, p. 29 as a bearded man. They were published by Petrie, as women of course, in *Naq. Bal.* (1895), pl. 59, 7, and again in *Preh. Eg.*, p. 7, and pl. 46, Nos. 1-3.
[2] *Mostag.*, p. 71 (tomb 1832). The tomb is labelled "Amratian," but there was no pottery in it, and nothing to date it definitely to any one period.
[3] *Naq. Bal.*, pl. 59, 4 and 5. [4] *Loc. cit.* [5] *Naq. Bal.*, p. 19.

a face is sometimes incised very summarily. The solid tusk with a human head carved on the top from Badāri 3165 [1] does not seem to have been taken from a tomb. The pot in which it was found is dated S.D. 37–38. I do not know whether its being found outside a tomb explains its being single or whether this is mere chance. The type with the carved head is generally taken to be the oldest, and the incised lines are regarded as debased substitutes for it, but there is no evidence for this view, since no other tusk with a carved head has yet been found in an excavation. A fragment of a plain tusk, dated as early as S.D. 33, was found in Naḳāda tomb 1491.[2] The two beautiful pieces in University College, crowned with heads carved with long beards,[3] do not seem to me to be prehistoric at all: not only is the style of the heads different, and, as I think, later than that of the prehistoric pieces, but the ivory also differs in consistency and appearance from that of the other tusks. Here again I suggest that the differentiation in the pair of tusks, one solid and the other hollow, marks them as being male and female. We know from the curious letters to the dead of the Old and Middle Kingdoms that the dead were credited with some influence upon the fertility of their descendants [4]; perhaps it is not too fantastic to think of a similar connection here.

To come back to the statuettes of Naḳāda I, I know of no other male ivory figure from this period which has been found in an excavation. Two clay ones, however, were found in tomb U. 96 (S.D. 36) at Hū.[5] One of them is at University College. The heads and feet are broken off. One can see that they wore the sheath. No female ivory statuette is extant; only the leg of one (unpublished) was found in Naḳāda tomb 273 (S.D. 32). Two clay figures of women [6] were in the rich tomb B 101 (S.D. 34) at Ab'ādīya. Both heads and part of the legs are missing. One is of the armless type, and so is the curious fragment from Naḳāda tomb 1611 of S.D. 36–38 (pl. 6, 2-3),[7] which may already be under the influence of the Naḳāda II civilization. The head and one leg are missing. As far as one can judge from this extremely rough piece of work the woman seems to be steatopygous. The tattooed woman with raised arms which Petrie published in *Naqada and Ballas*, pl. 59 as being of Naḳāda I was bought, and has no counterpart in anything found in an excavation.

If we now try to piece together what we have learnt about the religion of the Naḳāda I people we are not much advanced. Animal worship there was, and perhaps also tree worship. Most interesting is the mother-goddess—or better, fertility-goddess, since she is never represented with a child —who is seen on the pot from Naḳāda and those from Diospolis Parva (p. 31 above). We have seen that a goddess in the same characteristic attitude is represented on a Middle Kingdom vase in the Ashmolean, and on the multiple vase from Koptos which formed part of Tuthmosis III's foundation deposit at the temple of Mīn. There she is represented twice as a cow standing between each pair of vases, and each vase has arms with hands supporting breasts (fig. 3, p. 31). This object proves that in this part of the country the fertility-goddess survived into the New Kingdom.[8]

[1] *Bad. Civ.*, pl. 53, 16.
[2] *Naq. Bal.*, pl. 62, 35.
[3] *Preh. Eg.*, pl. 1. These tusks were bought, and are not from a proper excavation.
[4] Cf. Alan H. Gardiner, *A New Letter to the Dead*, in *JEA* 16 (1930), pp. 19 ff.
[5] *Diosp. Pa.*, pl. 5.
[6] *Op. cit.*, pl. 5.
[7] *Naq. Bal.*, p. 29. Picture in Capart, *Les Débuts de l'art en Égypte*, p. 156, fig. 113.
[8] In his article on *Predynastic Figures of Women and their successors*, in *JEA* 15, pp. 44 ff., G. D. Hornblower mentions a few more vases of this type. He quotes one as being prehistoric, from an article of Naville in *Recueil de travaux* 21, p. 212. But this is not a prehistoric vase: from the photograph it seems nearest in style to the Tell el-Yahūdīya jugs.

The existence of Sēth is less well attested. It may be due to mere chance that he has not been found in his own town of Naḳāda before the second Naḳāda period, and it may be that it is his animal that is in the tomb at Maḥāsna, or even on the white-painted pot in Berlin (p. 30 above), but we must wait for more material before we can form a definite opinion. The same is true of Mīn. Yet the fact that the pot-marks ascribed by Petrie to Naḳāda I are on a rough pot of the Naḳāda II type, and the frequent use of Mīn's sign on the standards of the Naḳāda II boats where the Sēth-animal is never found, seem to me to speak in favour of Mīn's belonging to Naḳāda II only.

The appearance of the Red Crown of Lower Egypt on a sherd of the end of the Naḳāda I period also poses an unsolved problem. Mr. Wainwright has devoted a lengthy article to it,[1] in which he discusses the possibilities of its belonging to the first or the second Naḳāda period, without coming to a definite conclusion. Beyond this we cannot go so long as no new material is forthcoming. It is in any case interesting to see that even this prominent symbol of the North occurs first in a southern connection.

There is very little to be said about the form of the settlements during the Naḳāda I period. Garstang excavated at Maḥāsna a settlement that may go as far back as this, but from his little map [2] nothing can be made out as to the plan of the village or town. He found no houses or huts, but a sort of wind-screen, open at two sides, which may have been a temporary shelter. Miss Caton-Thompson has excavated hut-circles at Hammāmīya which belong to the end of Naḳāda I. They were made not of bricks but of mud—indeed we have no evidence of the use of bricks during this period. These mud circles are supposed to be the support and skirting for superstructures of more perishable material. Imprints on the inside of the mud walls show that these were coated with a layer of reeds or straw. There were no signs of doors, which therefore must have been in the superstructures, and at some distance above the floors of the huts. These buildings resemble the hut-circles excavated at Merimda in the Delta. Thus in out-of-the-way parts of Egypt the circular or oval hut survived into the Naḳāda II period. Merimda is so far the only place in Egypt where the plan of a prehistoric village has been ascertained. The tiny houses—the largest were 3.30 by 2 m., the smallest only 1.50 by 1 m.—were arranged in a street. They are explained as being sleeping-places for families and single persons. Inside this restricted area the dead had also to be accommodated: 125 skeletons were found in 27 huts belonging to different levels. Compared with the large cemeteries of Upper Egypt with their many hundreds of burials, Merimda must have been a very small place.[3]

We can only guess that the earlier Egyptian house was either circular or oval. This conjecture is derived from the shape of the tombs, for tombs often have a certain connection with the plan of the houses, being the dwelling-places of the dead. The graves of Naḳāda I are circular and oblong holes in the ground, and do not differ from those of the earlier periods. Of the plan of an Upper-Egyptian village or town of the time we know nothing.

Indeed our knowledge of the Naḳāda I period is very limited, and much more material must be recovered before we can go at all deeply into the many problems connected with it. But one thing seems to emerge even now from our scanty data: the Naḳāda I period belongs wholly to that line of culture which began to take root in Egypt during Tāsian and Badārian times.

[1] *JEA* 9 (1923), pp. 26 ff.
[2] J. Garstang, *Mahâsna and Bêt Khallâf*, p. 5, pl. 4.
[3] Junker in *Anz. Wien*, 1933 (cf. p. 74), and 1934.

We have seen that most probably that culture came to Egypt from the South, and that there is not enough evidence to show whether from Tāsian times onwards there was an uninterrupted development on Egyptian soil which led up to Naḳāda I or whether we have to assume new influxes of population from the South. As we know that even in later periods populations with a culture similar to that of these early prehistoric periods continued to invade Egypt from the South, we will have to reckon with both possibilities, especially since it seems likely that some connection with the original home of all these migrating tribes was still maintained.

This culture down to Naḳāda I, i.e. that of the people with the bifacial flint industry, has been ascribed commonly to the Hamitic strain of the Egyptian population of the historic period. The scanty research done has revealed the bifacially worked flint culture west of Egypt in the oases of the Libyan desert. It has been found in the Fayyūm and in the Western Delta at Merimda, though there it was mixed with elements of the blade culture of Naḳāda II and was therefore later in date. About the culture and flint industries of the tribes of the Eastern Desert I know nothing, and I must therefore leave them out of the picture. But from what has already been stated it does not seem unreasonable to assume that the drive which carried the population northwards into Egypt was not restricted to the borders of the Nile valley but also affected the country to the west.[1] As we have no evidence of the existence of black-topped pottery in these parts, this movement must have preceded the invention of such pottery. If we knew more of the Tāsian we should perhaps have more definite views as to the date of this great movement of population. The Western Desert at this early time seems to have been a country even better suited to the needs of the early settlers than was the lower course of the great river, since we have so far no evidence that this was occupied by them. The picture of Libya given on the famous fragment of a slate palette,[2] which shows herds of domesticated animals and trees together with the hieroglyph of Libya, supports our view of the greater fertility of the Libyan desert in proto-dynastic times. Yet, though we know little of the pottery of these parts of the desert, the presence of the bifacial flint industry divides the culture of the Western Desert sharply from the Capsian cultures of more westerly North Africa, and shows that the populations of the Western Desert and of Upper Egypt were one and the same at the outset, though the opportunities offered by the Nile valley had probably brought about a certain differentiation even during Naḳāda I.

D.—*Naḳāda II*

All this changes fundamentally and abruptly with Naḳāda II. What I have tried to outline up to now is the slow development of a prehistoric people not much different from and not much more interesting than any of the other prehistoric populations of Africa. It had no connection with the Mediterranean, and very likely it would never have played a part in the development of human civilization but for its early contact with another people possessing a far superior culture. This people of the decorated pottery we find in possession of the Nile valley at the period of Naḳāda II. Much has been said about the origin and the affinities of this pottery and of its producers, but before I go further into this matter attention must be called to another

[1] H. A. Winkler, in *Rock-Drawings of Southern Upper Egypt*, I (*Archaeological Survey of Egypt*), p. 18, assumes that the Hamitic speaking population, his "cattle breeders," "show a certain similarity in style and culture in both deserts, Eastern and Western."

[2] First published by Steindorff, *Aegyptiaca* (*Festschrift für Georg Ebers*), p. 123.

modification in the culture of Egypt, of much more moment, it seems to me, than the change in the pottery, namely the change in the flint industry. With Naḳāda II we find a highly developed blade technique taking the place of the former bifacial industry. Not that the latter was abandoned altogether; for objects intended for religious or ritual purposes the bifacial technique was retained even under the early dynasties and later. Although it must have been quickly recognized that the blade technique was superior and more efficient, and although we find the implements of everyday life now replaced by blade tools (pl. 5, 1.3.4.7), the two techniques formed a sort of symbiosis unknown to me in any other country. A beautiful flint knife with a blade eight or nine inches long, having one side worked all over with the shallow retouch of the "Fayyūm" technique, whilst the other shows the original surface which it had received when struck from the nucleus, is by no means uncommon in Egypt. In the very finest and thinnest examples the blade was first ground down to an incredible thinness and then retouched for ornamental purposes only, in what is commonly known as ripple-flaking. Though sickle-blades, saws, and other small tools used in everyday life may have been made in the houses, this sophisticated work was produced in factories near the flint mines, for no nuclei have ever been found in a tomb or a settlement which could have yielded any of the larger flint implements. Flints in tombs increase greatly during Naḳāda II. Dozens of small blade-knives with little or no retouch, sickle-blades with blunted backs, scrapers on blades, and even burins or gravers, and the "twisted" blade are among the types. They take much less time to make than a tool carefully worked on both sides, and as regards the knives and sickle-blades were probably more efficient. Together with all the rest of the implements the arrow-heads undergo a remarkable change. It is during Naḳāda II that the chisel-ended arrow-head first makes its appearance in Egypt. It has been thought that this characteristic weapon was derived from Capsian forms, and for some reason, which as far as I can make out has no basis in fact, the Libyans or the Hamitic element of Egypt was held responsible for its introduction into Egypt. This of course cannot be reconciled with its total absence from the known early Egyptian sites. We have seen that the Hamitic element, if this is identified with the people of Naḳāda I, produced the culture of the bifacial flints, fundamentally different from the Capsian of North-west Africa. It seems to have been persistently overlooked that an early blade culture did not exist there. In Palestine the Natūfian is a blade culture, but what is much more important still is that Mesopotamia also had a blade technique. Unfortunately very little is known about the Mesopotamian flint industry, but Sir Leonard Woolley mentions[1] that the chisel-ended arrow-head "is quite common in the al-'Ubaid strata," and it has also been found in early strata at Warka. From what I have seen of the flint industry of Mesopotamia in various museums, I find it to be a blade technique with some admixture of carefully worked bifacial points. Unfortunately most of the material is not closely dated to definite strata. This seems to hold good for Elam also, but my knowledge of the Mesopotamian flint industry is much too limited for me to generalize on this point. Thus we had better confine ourselves to Woolley's statement about the chisel-ended arrow-head. As we shall see, there is reason to assume that the people in Egypt responsible for the Naḳāda II culture came from the East, so that we had better look in that direction for the introduction into Egypt of this arrow-head also.

It is not yet certain that the small flaked axe resharpened by a transverse blow belongs to

[1] *Ur Excavations*, II, p. 381.

Naḳāda II only, though it seems likely. It was mentioned before that it is the characteristic tool of the Armant settlement, but that does not prove that it was unknown earlier.[1] No axes were found at Hammāmīya earlier than Naḳāda II, and the two ground ones from Badāri [2] were not found in a datable context. They cannot very well have been the *Leitfossil* there as in the later settlement, otherwise some would have been found, but be that as it may the technique of its manufacture seems to indicate a maker accustomed to blade production. To form the tool with a few skilful strokes and then to sharpen the edges by a *coup de tranchet* is a much more efficient method of production than first to grind the flint pebble into shape and then to reflake part of it in a rather clumsy way with many strokes parallel to the edge.

I fear I must say something about the Campignian question in connection with these axes. I would much rather have avoided it, for the problem is thorny, and I do not think it can be solved with our present knowledge. But Mr. Huzayyin has mentioned me [3] as having tried to derive this axe from a Campignian context, and as his statement was certainly justified I must explain how I have come to change my mind. In the foregoing paragraph it was made clear that I now consider the flaked axe to belong to the blade culture of Naḳāda II. When I thought of it as a Campignian type, I was misled by its resemblance to the core-axe (*Kernbeil*) of that culture. I did not then know the Egyptian material as well as now, and it had especially escaped me that Naḳāda I and Naḳāda II belong each to a fundamentally different flint civilization. I am not in a position to say whether Menghin is right in maintaining that all the bifacial industries of Mesolithic Europe and North Africa derive ultimately from one and the same source. If any of the prehistoric cultures of Egypt could be brought into a Campignian context, it could be only the earlier one, including the first Naḳāda. Menghin thinks [4] they belong to that complex, but it seems that this culture is so unorthodox as to have the pecked and ground axe (the *hache à boudin* or *Walzenbeil*), and not, as it should, the flaked one. But none of these hypotheses has strong foundations, and much more work will have to be done, especially in Egypt, before it will be worth while to discuss them further.

Together with the flint industry the pottery in Egypt underwent a fundamental change. A better material is now used in its fabrication—clay instead of Nile mud. To O. Myers is due the credit of having investigated and explained this question in full.[5] I do not wish to repeat what has been so ably dealt with already. But the problem of the "wavy-handled" pots must be discussed here.

The "wavy-handled" pottery of Egypt presents a difficult problem. It is a distinctive group, and Petrie based his system of sequence dating on it by assuming a development of the shape of these pots. "Beginning almost globular," he says, "with pronounced ledge-handles, waved, . . . they next become more upright, then narrower with degraded handles, then the handle becomes a mere wavy line, and lastly an upright cylinder with an arched pattern or a mere cord line around it." [6] The first three types on pl. 28 in the *Corpus* are evidently meant

[1] The settlement at Armant is dated from about S.D. 35 to 72 or 78. The lowest stratum, III, is dated from about S.D. 35 to 38 or 42, i.e. from the end of Naḳāda I to the beginning of Naḳāda II. There was no natural stratification to divide the two cultures. One ground and three flaked axes were found in III as against 12 flaked in II and 30 flaked in I.

[2] *Bad. Civ.*, p. 36 ("Celts").

[3] In *Cem. Arm.*, p. 227.

[4] *Die Primitivtypen des Neolithikums von Merimde-Benisalâme*, in *Anz. Wien*, 1932, p. 83.

[5] *Cem. Arm.*, pp. 50 f.

[6] *Diosp. Pa.*, p. 5.

to show the earliest forms. No. 1 is dated to S.D. 40. The original pot (see also *Naqada and Ballas*, pl. 31) is now in the Ashmolean Museum, Oxford; it was not taken by Petrie from a tomb or any dated context, but seems to have been bought on the spot. Petrie was probably of opinion that the vase came from a Naḳāda tomb that had been plundered. It is certainly not a piece on which such far-reaching conclusions should be based. The second pot of this type in the *Corpus*, W 1 G, is from El-'Amrah, and so is the third, W 1 T. The last is dated S.D. 43 in the *Corpus*. This must be a mistake. The pot was found in tomb a 6 at El-'Amrah. In the original publication by MacIver and Mace [1] it comes under the heading "Graves between S.D. 40 and 64, hardly to be more precisely dated." As the rest of the pottery found in tomb a 6 is published, one can easily sequence-date it by Petrie's method to between S.D. 44 and 63. Pot W 1 G is from tomb b 244, which comes under the heading "Graves between S.D. 60 and 70." The rest of the pottery in the tomb gives a date between S.D. 58 and 62. This later date is supported by the fact that two pots of this type were found in the cemetery of Abuṣīr el-Meleḳ, which is dated to about S.D. 60–80.[2] Scharff, who saw that Petrie's sequence-dating did not agree with his material, was aware that something was wrong. But he tried to explain the discrepancy away by maintaining that Petrie's system was right for Naḳāda only.[3] That is not so. In this particular case it is wrong for Naḳāda also. There is no reason to restrict the sequence-dating to Upper Egypt only, but Petrie's attractive line of evolution of the wavy-handled pots falls to the ground. (I do not include here the cylindrical jars with wavy or cord lines as decorations; these are definitely later.) All these varieties occur during the same period. But this does not, I think, affect Petrie's other assumption, that these pots are un-Egyptian. They may be of Palestinian origin. The great difference in time between their occurrence in both countries has been diminished considerably from the Palestinian side, as I understand[4]; thus, if the Egyptian ones are later than was originally assumed, that would only bring them nearer together. Moreover, I had an opportunity of showing the wavy-handled pot type W 2 c from Gerza to the late Mr. Starkey on his last visit to University College Museum; he assured me that this pot was of Palestinian manufacture, and that the incision along each of its ring-handles was especially characteristic. This pot is from Gerza, tomb 185, unfortunately very vaguely dated in the *Corpus* to S.D. 43–70. The tomb is not mentioned in the catalogue of the tombs from Gerza in *Prehistoric Egypt*, pl. 52, and I cannot now look up the original tomb-cards, which are kept with the papers of University College. Thus a closer dating cannot be attempted. But I think it not too daring to assume a connection with Palestine at a time when the Naḳāda II culture was firmly established in Egypt. I do not wish to venture on any statement about the origin of the wavy-handled pottery. It is known in the Balkans and in prehistoric Italy. I would rule out an Egyptian origin for it. The fact that real ledge-handles occur at the same time as purely ornamental ones seems to indicate that they were not a device of utilitarian purpose in Egypt: the potter played with them to embellish his manufacture, sometimes he imitated them from an imported prototype, sometimes he deviated from his models, following his own taste. But, of course, there is no certainty about this. Nor is there any fixed date yet for their beginning

[1] *El Amrah and Abydos*, p. 22.

[2] G. Möller and A. Scharff, *Die archaeologischen Ergebnisse d. Vorgeschichtlichen Gräberfeldes v. Abusir el-Meleq*, p. 73.

[3] The pots do not occur as he says in "what different surroundings!" from those at Abuṣīr. The two tombs from El-'Amrah yielded between them 27 pots, only one of which was black-topped.

[4] G. E. Wright, *The Pottery of Palestine from the Earliest Times to the End of the Early Bronze Age*, p. 48.

in Egypt. Looking through the *Corpus* I should be inclined to fix it somewhere between S.D. 45 and 50. There is only one example in the *Corpus* which is definitely dated to an earlier period, namely type W 3 B, from Diospolis, of S.D. 42–43. I do not know where this pot is now, nor from which tomb it came, so one cannot decide whether the date was given by the other contents of the tomb, in which case this would be the earliest known specimen, or whether the tomb is dated after the wavy-handled pot, in which case no importance could be attached to the date.[1]

The stone vases also show a great improvement. All sorts of beautiful stones are now used, such as diorite, porphyry, red breccia, and slate, some of them of great hardness. Apart from the old cylindrical form there is now a variety of types, vases with suspension handles, saucers, and vessels in animal shapes unknown to earlier times. Metal is now much more common. It is used not only for pins but for all sorts of other implements and ornaments. Prominent amongst these is a little tool, a sort of chisel but with an edge only a few millimetres wide.[2] It has been explained as a wood-working instrument; to me it seems more likely to be a toilet implement, perhaps one for applying paint to the face. In tomb 162 at Naḳāda, where two of them occur, there is also a little ear-spoon and a prick point, all matching in size.

And not only is copper used, but gold and silver as well. Whilst copper and gold are found in the countries bordering on Egypt, silver must have been brought from afar, and so must lapis-lazuli and obsidian, which are now found as material for beads. There was enough copper to make adzes from, as we see from the narrow tools which have a bevelled chisel-edge and are clearly adze-blades. I do not know of any copper axe before dynastic times; it therefore seems to me most remarkable that no stone axes have been found at Ma'ādi, a fact which has led the excavators to assume copper axes to have been in use. The stone axe certainly survived far into dynastic times; I believe that, like the flint sickle-blades, and the chisel-ended arrow-heads which still armed the arrows of Tutʿankhamūn, it did not go wholly out of use before the general introduction of iron. Ma'ādi is situated at the head of the road leading to the Sinai Peninsula and its copper mines, and copper may therefore have been more plentiful there than in any other part of Egypt, though this does not seem to me to explain the phenomenon. No copper axe was actually found at Ma'ādi, so that a real solution of this problem is in suspense.

The shape of the so-called adze-blades of copper mentioned above has no forerunner in flint in Egypt, and may therefore have been imported by the Naḳāda II people. Like the little

[1] I wish to add a few words about another type of pottery by which it has been attempted to date Palestinian civilization and to synchronize it with that of Egypt. This is the high-handled pot, *Corpus* type L 70 (pl. 51). G. E. Wright, in *op. cit.*, p. 28, quoting Petrie from an article in *Revue Biblique* 44 (1935), dates the pot to before S.D. 40. This misleads Miss H. J. Kantor, in *The Early Relations of Egypt with Asia* (*Journal of Near Eastern Studies*, I, 2, p. 176), into calling it "Amratian." The type is dated by its being found in Susa in "niveau III" (R. de Mecquenem, *Notes sur la céramique peinte archaïque en Perse*, *Mém. Miss. arch. Perse*, *XX*, pp. 99 ff., fig. 2). It was found there together with a jug with a crooked spout, and must be dated in Egypt to the beginning of the Naḳāda II period. Miss Kantor connects the spouted jar of Egypt with similar types in Palestine. This type, as well as the high-handled pot mentioned before, and the urns with triangular lug handles and incised decoration which Miss Kantor ascribes, no doubt rightly, to Mesopotamian influence, seems to be one of the types in Egypt which testify that the Uruk period made its influence felt even there, and the Palestinian examples probably go back to the same source. I do not wish to elaborate this thesis here, as the second part of this book will show that even the white painted pottery of Egypt depends ultimately on Iranian prototypes, and the influence from the Asiatic centres of civilization made itself felt throughout Egyptian prehistory. But it did not take its way *via* Palestine.

[2] *Naq. Bal.*, pl. 65, 9-11.

implement mentioned above they have been explained as tools used in wood-cutting, and so they may be, though this explanation does not seem to me to be wholly satisfactory. Apart from the fact that tools used by artisans are as good as wholly absent in prehistoric Egyptian tombs, it seems very unlikely that adzes were made of metal whilst axes were not, when both of them were used for working the same material. I would much rather see in them weapons, the forerunners of the Egyptian battle-axe, and I do not think that the fact that they are shaped like adze-blades would wholly contradict this. The adze found at Ballāṣ is of silver, as analysis has proved.[1] Silver was even more costly than gold in the earliest periods of Egyptian history, and we have no other example of "ceremonial" tools being placed in an Egyptian tomb of the time. Moreover, new inventions such as the use of metal are much more apt to be used for war than for peaceful purposes. However this may be, the pear-shaped mace-head that is characteristic of Naḳāda II was certainly a weapon. It was unknown to Naḳāda I, and the fact that it was found at Merimda is further evidence that this site is not older than Naḳāda II. The discoid mace-head, if such it be, of the earlier period survived, however, into early dynastic times.

About the shape of the Naḳāda II houses and settlements we know even less than about those of the earlier period, for unfortunately Armant, the recently excavated settlement of this time, did not yield houses, nor even hearths or the holes dug in the soil and containing pots which are so characteristic of prehistoric villages in Egypt. What sort of a settlement this was, we are therefore at a loss to say. We can only try to form some ideas from indirect evidence. The shape of the tombs, or at least of the better ones, changes with the arrival of Naḳāda II from the circular or oblong hole in the ground to a more rectangular plan, and now crude bricks are employed. The house walls in Petrie's map[2] of the prehistoric town of Nubet are those of rectangular constructions. The model of a rectangular house was found at El-'Amrah.[3] All this points to rectangular houses being introduced into Egypt at this period. Petrie speaks[4] of a fortified wall at the prehistoric town of Nubet, and the model of part of one has been found in a tomb at Diospolis Parva.[5] The tomb is dated with so wide a margin that we cannot say whether it belongs to the first or the second period. Of the model only the corner of a rectangular construction is preserved, with a wall crowned by a rectangular battlement, which suggests bricks as the most likely building material. The time of the main struggle between the Naḳāda II and the Naḳāda I peoples is, perhaps, the most likely period for this object.

We have seen that the Naḳāda I people developed industry: flint mining and flaking. Was this their own invention, or an imitation of a practice seen elsewhere? It may well have been the output of the flint industry that attracted the Naḳāda II people to Egypt when they began to trade with Naḳāda I. Or had the Naḳāda I people developed some other manufactures, or did they possess some valuable raw product of which we know nothing? At any rate, the situation must have been such as to make a *coup d'état*, bringing about the conquest of the earlier inhabitants of the Nile valley, worth while for those who had at first come only for

[1] This adze is mentioned in *Naq. Bal.*, p. 14, pl. 65, 6 and in Petrie, *Tools and Weapons*, p. 16, pl. 16, 65. It is not known exactly where it was found at Ballāṣ, and may therefore be from the surface, yet it corresponds in type to the copper axes of Naḳāda found in dated tombs, and so can hardly be of another period.

[2] *Naq. Bal.*, pl. 85.

[3] Randall-MacIver and Mace, *El Amrah and Abydos*, p. 22, pl. 10, 1-2. The model came from tomb a 4, of S.D. 44-64.

[4] *Naq. Bal.*, p. 54.

[5] *Diosp. Pa.*, pl. 6 (B 83).

peaceful purposes. We know nothing of the political system of the Naḳāda I period, but it seems unlikely that the conquering people were without a leader, perhaps a king, who directed their expeditions. Whether they found in Egypt anything similar to their own system of government we do not know, but a town like Nubet must have been the centre of some part of the surrounding country, and have had some sort of political organization.

Again, we do not know where the Naḳāda II people came from, and which was the route by which they invaded Egypt. The only place outside the Nile valley where their characteristic style of drawing has been found, representing the ships we find on the decorated pottery together with the Red Sea boats as represented on the famous ivory knife-handle from Gebel el-'Araḳ, is in the Wādi Ḥammāmāt. Winkler, who has published these rock-drawings, thinks of the Naḳāda II people as coming from the Delta and descending to the Red Sea coast, following in this Scharff's suggestions. But since, as we have seen, they could not have originated in the Delta, there is no difficulty in assuming that they came from the Red Sea through the Wādi Ḥammāmāt. This has been Petrie's view, and I see no reason to depart from it. But we can be certain of this only when we know where the Naḳāda II people had their origin; at present it is only a guess. If they came through the Wādi Ḥammāmāt it would explain why we find their earliest remains in that part of Egypt where the Wādi Ḥammāmāt joins the Nile valley. Koptos is situated at this junction, and at no great distance across the river are Nubet, the capital, and Diospolis Parva. The district including these three cities is that in which we find not only the remnants of their trade during the Naḳāda I period, but also their earliest types of pottery. None of the excavated cemeteries or settlements in Lower Egypt can be dated to the earliest phase of Naḳāda II. Only, it seems, when they were safely in possession of Upper Egypt did they turn north to colonize that part of the country. The state of desiccation of the valley must have encouraged them to do this. But there seem to have been other reasons, at which again we can only guess. El-Ḥaraga, Gerza, and Abuṣīr el-Meleḳ are all near the entrance to the Fayyūm, a significant fact. One of their camps or settlements was actually found in the Fayyūm itself.[1] What it was that attracted them to the Fayyūm is unknown; the gypsum quarries, for example, do not seem to have been exploited before the Old Kingdom. Farther north, the position of Ma'ādi, a little later than the three sites just mentioned, seems to be the earliest evidence of an interest in the Sinai Peninsula and its copper and turquoise mines. Turquoise was known to the inhabitants of the Nile valley from at least Badārian times, but we do not know whether Sinai was the source of their supply so early. The earliest relief of an Egyptian king at the Sinai mines is of the First Dynasty, and so it is not improbable that they had been known and exploited for a certain length of time previously; the occurrence of wavy-handled pots makes it likely that a connection with Palestine was established. The founding of Memphis in the same district as Ma'ādi points to the growing importance of that part of the country. But the Naḳāda II people seem to have driven forward even beyond the borders of the Delta. Some of their beautiful stone vases have been found in an early stratum at Crete.[2] In this connection one may perhaps mention the tombs of Mirsa Maṭrūḥ. In one of them was found a broken stone vase of prehistoric Egyptian make. Its type with the spreading base is not very common in Egypt, and at the time of this discovery was known in Egypt only from specimens bought

[1] Caton-Thompson and Gardner, *The Desert Fayum*, p. 69.
[2] Sir Arthur Evans, *The Palace of Minos*, I, figs. 29-35.

from dealers.[1] Since then it has been found at Ma'ādi. Though none of the pottery found together with this fragment has been claimed to be prehistoric, the grave has been attributed to the first Naḳāda period. Stone vases may survive their period for a considerable time. (A squat stone vase of Naḳāda II forms part of the treasury of St. Mark's, Venice!) It is therefore dangerous to date by such a vase unless the context corroborates the dating. We have more examples in Egypt of damaged stone vases passing into barbarian hands, and being buried with their owners. But more than that, the type has been called Libyan, because Mirsa Maṭrūḥ is situated in what is believed to have been Libyan territory in prehistoric times. One might as well call the squat shape "Venetian" because it exists in St. Mark's. If the Mirsa Maṭrūḥ tomb is really as early one might be tempted to bring it into connection with the trade route to Crete. It is most likely that this went overland (especially if the desert conditions were more favourable than they are today), to a point where it could make the shortest possible crossing over to Crete.

As far as our knowledge goes the centre of the Naḳāda II population in Lower Egypt (as defined above) must have been near the entrance to the Fayyūm, whilst that of the contemporary population in Upper Egypt was between Abydos and Hierakonpolis. Thus a great distance separated the two, and each part in turn formed a kingdom of its own, the kingdoms of Upper and Lower Egypt. Between them there seems to have been a thinly populated strip, since we have little information on prehistoric remains north of Abydos, or rather of Badāri, and south of the Fayyūm. I do not know how far this is due to our lack of knowledge. The ethnical difference between the kingdoms, especially as regards the ruling classes, cannot have been great. In the south there will have been a considerable admixture of Naḳāda I people, but whether this was also the case in Lower Egypt we cannot even guess, for we do not know whether the colonization of Lower Egypt was undertaken from the southern kingdom, from settlers who were already of the mixed stock of the south, or from the sending forth of a fresh wave of the Naḳāda II people who found the south already in safe possession of the earlier invaders and who therefore turned northwards. I know that this opinion is in conflict with the belief generally held which would divide the two prehistoric kingdoms of Egyptian tradition between the peoples of Naḳāda I and II. There is no evidence of this, nor of two peoples of different extraction inhabiting Upper and Lower Egypt. If I am not mistaken, Gunn has come to conclusions which would strengthen my thesis.[2] The *rekhyt*-birds which are shown suspended by the neck from standards on fragments of a sculptured mace-head of the Scorpion King represent enemies of the king, like the bows (traditional symbols of the king's enemies) shown thereon similarly suspended from standards. On the base of a statue of Djoser from the Step Pyramid the nine bows are under the feet of the king, but in front of his feet are three *rekhyt*-birds which, though also treated as conquered enemies, are yet in a more favourable condition than the bows. Gunn points out that in later times the *rekhyt* were clearly regarded as a part of the Egyptian population, and concludes that they were a race dwelling in the Delta or a little south of it, originally hostile to the Upper-Egyptian kingdom, but later subjects of the united kingdoms. To this we may add that no doubt they were easily assimilated because in origin and civilization they did not differ from their conquerors, so that they were completely absorbed without trace.

We have spoken of the Southern and Northern Kingdoms because with the later part of

[1] O. Bates, *Archaic burials at Marsa Matruh*, in *Anc. Eg.*, 1915, p. 158; the same in *Harvard African Studies*, I, p. 288.
[2] *Inscriptions from the Step Pyramid Site*, I, in *Ann. Serv.* 26, pp. 177 ff.

Naḳāda II we have reached a period entering into later Egyptian tradition and historical record. It is therefore no mere assumption that at the head of their political system was a king, and that Upper Egypt was now, if not earlier, united into one state. And at the same time Lower Egypt, as I have I think demonstrated, was colonized and made into a separate kingdom. There is another social achievement, mentioned above, which must probably be assigned to this period, and that is the introduction of the irrigation system. As was pointed out, the climatic conditions of the Nile valley made it possible for the Naḳāda II people to settle in the valley itself, whilst their forerunners had had to content themselves with the spurs of the low desert. This applies only to Upper Egypt, for Ma'ādi and Merimda are in the desert. But the facts that the upper valley was now fit for habitation, and that Lower Egypt could be colonized, point to a change in the water conditions. The kingdom of Upper Egypt seems to deserve the credit for this successful effort to irrigate the country. Whether the system of artificial irrigation originated on the spot, or whether the Naḳāda II people imitated similar methods used elsewhere, we cannot tell.

But it is not only in politics and economics that the institutions of the Naḳāda II people form the foundation of historic Egypt. In the religious sphere also their influence was never outgrown. We have seen that the Naḳāda I people venerated animals, trees, and also a fertility-goddess who survived locally at least as late as the New Kingdom. It has been pointed out above that possibly Sēth was their god, while doubt as to Mīn has been expressed. One more argument might be added in favour of this opinion. At about the middle of the Naḳāda II period it became the fashion to paint the decorated pots which were placed with the dead with ships equipped with little structures carrying standards of gods. Among these the standard of Mīn is not rare, whilst that of Sēth is wholly absent. To Mīn belongs the temple at Koptos where Petrie excavated the huge statues of the god, and also a couple of lions the style of which is somewhat related to that of the famous Lion-hunt Palette. This early temple speaks in favour of the god of fertility belonging to the end of the Naḳāda II period,[1] whilst the shape of the sanctuary of Mīn—cylindrical with a pointed roof, as shown in the early drawings—perhaps speaks against it. Nothing similar has been excavated at Nubet, where Petrie dated the earliest parts of the Sēth temple to the Fourth Dynasty, and we cannot tell whether the Naḳāda I people were in the habit of venerating their gods in temples. But it seems that the Naḳāda II people did so, and if they really entered the Nile valley through the Wādi Ḥammāmāt, Koptos would be the first town they encountered, the first they had to subjugate on their way to conquer the South. A temple to their own god of fertility, who was male, in contrast to the fertility-goddess of Naḳāda I, would certainly not have been out of place. This male god of procreation who does not need a wife permeates the crude creation-myths of the Egyptians, as far as we know them, and a mother-goddess has no part in them.

The goddess who does appear on the decorated ware is Neïth, who is not known to us from earlier times. She is the goddess of the two crossed arrows and of the shield, as represented on the early ivory from Abydos.[2] What the triangular object inside the naos stands for we do

[1] I see no reason to attribute the Lion-hunt Palette to Lower Egypt or to the Libyans. Ranke tries to prove this (*Sitzungsber. d. Heidelberger Akad. d. Wiss., Phil.-hist. Klasse*, 1924-5, p. 5) by attributing the tail the warriors are wearing to the Libyans, but it does not occur during Naḳāda I, nor do these warriors wear the sheath which is characteristic of the Libyans.

[2] Petrie, *Royal Tombs*, II, pl. 3A.

not know.[1] Neïth is usually claimed to be "Libyan" and indigenous to Saïs in the Delta. Her arrow with the chisel-end, of Naḳāda II origin, is in itself sufficient to show her non-Libyan extraction. If, as I believe, the Naḳāda II people are to be credited with the colonization of Lower Egypt, she may very well have been venerated at Saïs since its foundation. Only excavation can show how old she is there, and at what period the Delta proper was brought under cultivation. How important Neïth was in archaic times is shown by the theophorous names which occur during the first dynasties. Two queens of the First Dynasty, Neïth-ḥetep, wife of Narmer, and Merneïth, mother of Den, are called after her, and most of the women's names on the stelae from the protodynastic private graves at Abydos contain her name.

Most important among the gods which first appear on the standards of the Naḳāda II decorated pots is the falcon Horus. He is represented crouching on a crescent moon, as later during the First Dynasty; this suggests that he was originally a moon god.[2] At the same time statuettes of him are found in the tombs; one [3] of ivory comes from the town of Nubet. As he is the god of the kings of the First Dynasty, we may say with some confidence that these kings must have belonged to the descendants of the Naḳāda II people, for it is unlikely that they should have chosen as their special protector a god of foreign origin. I do not wish to enlarge on this, but only to add that as far as the evidence goes Hierakonpolis seems to have acquired an important position at this time. I agree with Kees when he upholds the theory that the myth of the fight of Horus and Sēth goes back to a time of strife in Upper Egypt. It seems to refer to the conquest of Nubet, the town of Sēth, by the Naḳāda II people, symbolized by Horus, the special god of their kings, at least at the end of this period.

There are symbols of other gods and goddesses on the standards of the ships shown on the decorated ware. The meaning of some is lost to us, e.g. that of the "Z" sign, and the double horns. Others are still known in the Old Kingdom, e.g. the row of hills that symbolizes the desert, standing probably for *Ḥꜣ*, who occurs in the Pyramid Texts (§§ 1013, 1712),[4] and who may be the *nb ḥꜣswt* of the reliefs of the tomb of Saḥurēʿ. We have no evidence of a cult of the sun at this time. The addition of stars to what Wainwright thinks is a bull's head on a slate palette found at Gerza suggests to that writer [5] a veneration of the sky as deity.

Amulets greatly increase during this period, and at S.D. 40 the bearded man makes his entrance in a Naḳāda II tomb. At the same time he appears in Crete. In Egypt we find him on the ivory combs with short teeth which are characteristic of this period, and on pendants which were fastened to a string.[6] We do not understand his significance, nor do we know the meaning of the amulet [7] in form of a horned head, probably of a bull, which we find in Naḳāda II graves, and which survives into the Archaic Period. There are many more which must have been of importance, for they also survive into historic times.

There is only one thing more to be discussed, and that is the introduction of the cylinder-seal and of writing. The earliest cylinder-seal so far known in Egypt comes from

[1] G. Jéquier, *Les temples primitives et la persistance des types archaïques*, in *Bull. Inst. fr.* 6, pp. 25 ff.

[2] *Preh. Eg.*, p. 49. Does the change in the form of the top bar of the *sereḫ* from a crescent to a straight line indicate the change from moon to sun?

[3] *Naq. Bal.*, pl. 60.

[4] See G. A. Wainwright, *The Bull Standard of Egypt*, in *JEA* 19 (1933), p. 48.

[5] *JEA* 19, p. 45.

[6] See *Naq. Bal.*, pl. 59, 5 (tomb 276, S.D. 42); pl. 59, 8 (tomb 268, S.D. 50).

[7] *Preh. Eg.*, pl. 9, 1-5.

Naḳāda, tomb 1863 (S.D. 46),[1] and is now in University College, London. The tomb contained a small vase of pink limestone, two ivory armlets and a comb, a black incised vase, and a few carnelian and quartzite beads; all these objects, with the exception of one half of the black vase, which is in the Ashmolean, are in University College (pl. 6, 10). Petrie mentions four more pots in *Prehistoric Egypt*, when he discusses the date of the cylinder, which he fixes to S.D. 46 or certainly not later than S.D. 50. The object is of stone, with a pattern of incised lines which resembles so strongly patterns of the Jemdet Naṣr period in Mesopotamia, as found in Uruk and Ur, that it is in all probability an importation from that country. H. Frankfort, in his recent book *Cylinder Seals*,[2] mentions another cylinder found in a Naḳāda tomb. He says: "It was found at Naqada in a tomb which, Sir Flinders Petrie kindly informs me, contained merely two pots beside this seal and its beads. Their types [3] date the interment to the latter part of the Gerzean [Naḳāda II] or the late pre-Dynastic period. The cylinder is a typical Mesopotamian specimen of the Jemdet Nasr age. . . ." [4] These two seal-cylinders of Mesopotamian origin found in Egypt make possible a synchronism in early cultural periods of the two countries. I think it is not too hazardous to say that Naḳāda II must have been contemporary with Jemdet Naṣr. This synchronism is very important, for at the time of this type of Jemdet Naṣr cylinder-seal a primitive form of writing was already in use in Mesopotamia, whilst nothing of the sort was yet known in Egypt. Only at the end of Naḳāda II, shortly before the rise of the dynasties, do we find writing established in Egypt also. The system employed is too similar to that of the Sumerian script to make an independent origin likely, yet the repertory of signs is derived entirely from the surroundings of the Naḳāda II people. There is no evidence of a gradual development of script in Egypt, as there is in Mesopotamia. The system appears from the first ready-made, much the same as it was throughout Egyptian history. It is very interesting to note that, as Zyhlarz points out,[5] certain hieroglyphs originally had Semitic values to which were later added the commonly used names of the objects represented, e.g. the hand, which has the value *d*, from the Semitic *yd*, hand, whilst the common Egyptian word for hand was *ḏrt*, for which the same hieroglyph was used later. It follows that the Naḳāda II people spoke a Semitic language different from that of the Naḳāda I people. In the course of time this Semitic element was absorbed into the language of the country, whereby some of the Semitic words were lost. The general character of the language being Hamitic, we must conclude that Hamitic was the language of the Naḳāda I people. It was shown that this people seems to have invaded Egypt from the south, moving northwards, probably along both sides of the valley, certainly along the western side, and that at the very beginning of sedentary life in the Nile valley there can have been no difference but that of habitat between the people on the low spurs of the valley and those in the adjoining high desert. These peoples differed fundamentally from the more westerly population of North Africa and their Capsian culture. With this agrees Zyhlarz's statement that "Berber Libyan" stood in a very close relation to Old Egyptian in prehistoric times, and that the Hamitic language of Ethiopia stood in an almost equally close relation to it. He goes on to explain that the Hamitic group of languages may be regarded as a prehistoric colonial offshoot from the parent of the

[1] *Preh. Eg.*, p. 40 and pl. 9, 56.
[2] P. 293, pl. 46, *a*.
[3] "The types were B 53*a* and P 57*b*, with a range of Sequence Date 38-66 and 48-74 respectively."
[4] The seal is now in Berlin, see *Die Altertümer*, II, pl. 28, 133.
[5] *Ursprung u. Sprachcharakter d. Altägyptischen*, in *Zeitschr. f. Eingeborenen Sprachen* 23 (1932-3), pp. 85 ff.

later historic Semitic languages of Asia, and that it is therefore clear that from the outset Egyptian was related to the Semitic group. We have seen that the archaeological evidence points the same way. The "Libyans" who invaded Egypt from the south had domesticated animals and grain, both of Asiatic origin. The Naḳāda I people painted their vases, which is an Asiatic practice. If the bifacial flint culture which makes their archaeological remains so conspicuous is an African feature, and there is a slight possibility that it is, then it has nothing to do with the invention of agriculture. This would shed new light on the Campignian question, for the bifacially working Campignian people have been credited with the introduction of agriculture into Europe, if not with its invention.

As to the origin of the Semitic language of the Naḳāda II people, Zyhlarz unfortunately cannot tell us more than that it must have been a West-Semitic language of Western Asia which is unknown to us, because it does not seem to have left any written documents. The many Asiatic elements found in the Naḳāda II period in Egypt have often been pointed out, and I need not discuss this matter further. What I have tried to make clear is that the Naḳāda II people from the outset have a civilization so different from that of Naḳāda I that the one cannot have been developed in Egypt from the other, and that their painted pottery and their blade industry in flint both point to Asia. It seems most likely that their original home was not far from that of the Sumerians of Mesopotamia. On the other hand, the Naḳāda II people were sufficiently similar in origin and mental habits to the Naḳāda I people for their fusion into one people to be effected without great obstacles, and with results of the happiest kind for history.

VI. Conclusions

This short summary will recapitulate the most important results of the investigations of Part I.

The earliest inhabitants of the Nile valley after the Palaeolithic age were a people in *no* way descended from their predecessors in that country, or from the Capsian people of Western North Africa, or from the Mesolithic inhabitants of Palestine. While all these peoples have flint industries working from flakes or blades, the earliest Egyptians have a bifacially working flint industry.

The Nile valley itself was not in a fit state to be the habitation of men and cattle when the Tāsians, the first predynastic settlers of whom we know, arrived. Therefore the earliest settlers lived on the low spurs of the desert. This holds good for Upper Egypt; conditions in Lower Egypt and the Delta must have been even less favourable. We have no sign of the inhabitation, prior to Naḳāda II, of Lower Egypt north of Asyūṭ, a point which probably marked the frontier in prehistoric times and even later.

On the showing of our evidence the first settlers in Egypt came from the south, as did similar people with a closely related civilization in later times. They made their way west and probably east of the Nile valley; those in the west, who were later called Libyans, were the same as the earliest settlers in the valley. The Fayyūm people also belonged to them; the Fayyūm A culture was of the Naḳāda I period.

Whence these settlers ultimately came we cannot yet tell. Their flint culture perhaps points to South Africa, but our knowledge is at present too limited for us to form any conclusions.

They were already in possession of grain and cattle, both of Asiatic origin, and so they may equally well have come from Asia, which would agree with the origin of the Hamitic language they spoke.

Their pots were without handles, of a bad clay or mud, some of the better ones having a red slip polished mechanically. They do not appear to have made bricks. We do not know about their hut-forms during the earlier period; later these were round or oval, with a sub-structure made of mud.

Of their social and political institutions we know nothing, nor whether they formed small communities or states. Yet towards the end of the Naḳāda I period, Nubet and the settlements near it must have played a dominant rôle. From the importance of its cemetery and, perhaps, from the position of its god Sēth we may conclude that Naḳāda itself was of the nature of a capital.

Industry supplying a wide area was developed during Naḳāda I. The large and beautiful flint tools of this period were of quarried flint, worked in places outside the settlements, near the sources of the raw material.

Naḳāda I was the climax and the end of this civilization, which already had trade relations with an Asiatic people, yet no connection with the Mediterranean.

As to the religion of the Naḳāda I people we know that they practised animal worship, as is shown by the ceremonial burials of animals in their cemeteries. Moreover they venerated a fertility-goddess in the typical attitude, the hands supporting the breasts, in which we know her also in Syria and Mesopotamia. In Egypt she has cow's horns. Sēth may have been their chief god.

The Asiatic people with whom Naḳāda I had trade relations invaded the Nile valley at the end of that period. They are the founders of the Naḳāda II culture. These people were vastly superior in knowledge to the people of Naḳāda I, and with them begins the development which led to the foundation of the historic Egyptian state and culture. They were of a language and habit of mind not very different from the Naḳāda I people. They spoke a West-Semitic language sufficiently akin to the Hamitic dialect of the Naḳāda I people to be eventually merged into it.

Their fundamentally different flint industry divides them sharply from the Naḳāda I people, for in contrast to them they were blade workers.

Their pottery, superior in material and manufacture to that of Naḳāda I, is painted in a different style.

They were much superior in the art of metal working, and enjoyed ampler resources of copper. They introduced silver.

Where the country of their origin was we do not know, but their connection with the Red Sea was very important to them, and it seems likely that they entered Egypt through the Wādi Ḥammāmāt. Nothing in their culture points to their having come from the Delta, nor do the recent excavations made in the Delta offer any evidence of their early existence there.

They seem to have turned from the Wādi Ḥammāmāt and Koptos towards the flourishing communities of Ballāṣ and Nubet. After establishing themselves there, they, or a new wave of the same people coming from their original home, colonized Lower Egypt. All their cemeteries and settlements there are later than the earliest levels of Naḳāda II in Upper Egypt. The region

opposite the entrance to the Fayyūm seems to have been of special importance, for several of their cemeteries have been excavated there at no great distance from each other; they even entered the Fayyūm itself.

In this period the climate of Upper Egypt made settlement in the valley proper possible; the introduction of irrigation seems to be connected with this change of habitat.

How far to the North the Naḳāda II people penetrated is not known, but Merimda was in trade relations with them, for the Merimdans possessed flint tools of the new types, their pottery decoration was influenced by southern fashions, and they had the pear-shaped mace-head of Naḳāda II.

At about the middle of this period the Sinai peninsula and its copper and turquoise mines must have acquired greater importance, as the foundation of Ma'ādi shows. Of Heliopolis and a prehistoric kingdom dominated by it there is not the slightest evidence. No archaeological or written document mentioning Heliopolis, or coming from it, exists earlier than the Third Dynasty.

The influence of the Naḳāda II people extended beyond the frontiers of Egypt, for they had relations with Crete and probably Palestine.

They introduced writing into Egypt.

They were ruled by a king and were founders of the kingdom of Lower Egypt. They may also have been the founders of the kingdom of Upper Egypt, for we do not know the political system of the Naḳāda I people, or whether they had already made Upper Egypt into a political unit. At any rate, while they seem to have found Lower Egypt as good as empty, they absorbed a flourishing civilization in Upper Egypt, which thus became the region of chief importance.

They used bricks for building their tombs, and probably for the construction of their houses also. They seem to have introduced rectangular houses.

Some of the most important gods of later Egypt were introduced by them. Mīn, who was widely worshipped, was probably one of them, also Neïth and Horus, besides other gods who died out later on. There is no evidence of sun-worship before the end of the period; Horus seems to have been connected originally with the crescent moon. Osiris is totally unknown.

PART II: FOREIGN ORIGINS AND CONNECTIONS

I. Introduction

In the first part of this book an attempt has been made to give a correct outline of our knowledge concerning prehistoric Egypt as warranted by the facts, and to discard those theories which, because based on hypothesis or prejudice, have stood in the way of further research. The evidence adduced showed that the forefathers of the dynastic Egyptians were not the descendants of Palaeolithic or Mesolithic inhabitants of Egypt, but came from abroad. They took possession of the foot-hills of the Nile valley already equipped with the knowledge of agriculture and cattle taming, the art of the potter, and all the other accomplishments of an Eneolithic civilization. The problems which will confront us in this second part, therefore, will be those of the possible origins of this population. H. Frankfort has shown in his essay *Studies in Early Pottery of the Near East*, I [1] (London, 1924) that a connection existed between Egypt and Mesopotamia at the end of the Naḳāda II period. It seems, then, that the obvious course to pursue is to take this demonstrated connection as a basis and to see whether the painted pottery of Naḳāda II—the decorated ware—is connected in any way with the painted pottery of the countries of Iran and Iraq. Since the raw materials for the pots and their paint are local Egyptian, it is the shapes of the pots and the patterns of the paintings that lend themselves best to such an attempt. It was very soon seen that it was impossible to deal with the decorated ware of Naḳāda II without having elucidated as far as possible the origin and connections of the white painted pottery of Naḳāda I. The results of these researches will be found in the first five chapters of this Part. They will show, as I think conclusively, that the painted pottery of even Naḳāda I depends on Western Asiatic prototypes. The remaining chapters will make it clear that all those achievements of the prehistoric Egyptians which are eneolithic depend similarly on Western Asia. For Egypt, at any rate, a northern origin is definitely excluded; and the forefathers of the dynastic Egyptians cannot be traced even to the Mediterranean.

Unfortunately I must end this introduction with an apology. Of the chapters which were to follow those dealing with pottery it has been possible to write only one, dealing with stone vases. For the others the material has been gathered, but the detailed research cannot yet be carried out. Since it is uncertain that I shall find an opportunity of finishing my work I have thought it wise to accept the generous offer of the Griffith Institute to publish the results so far obtained. The emergencies of war must be my justification for this proceeding.

II. General Survey of the Pottery

Although much has been written in recent years about the painted pottery of the Middle East, the Egyptian painted pottery has not found a place in the circle of the painted pottery cultures. Egypt has been dealt with as if it had developed a civilization wholly of its own, un-

[1] *Mesopotamia, Syria, and Egypt and their earliest Interrelations* (Royal Anthropological Inst., Occasional Papers, 6).

touched by external influences, until, towards the end of the second Naḳāda period, it came into contact with the flourishing culture of Mesopotamia. Thus Mallowan, in his interesting book on prehistoric Assyria,[1] publishes a map showing the distribution of painted pottery: the map extends from Crete and Anatolia in the West via Assyria and Mesopotamia [2] to Persia and the Iranian Highlands, and thence to India; Egypt is left a total blank. The same is true of the map Frankfort publishes as a frontispiece to his paper *Archeology and the Sumerian Problem*. It has been known since Flinders Petrie's memorable excavations at Naḳāda and Ballāṣ in 1895 that prehistoric Egypt also had painted pottery. On p. 29 above it was said that we do not know of any painted pottery outside Egypt in prehistoric times which has been evolved without contact with Asia. The question was not then discussed, but we will have to ask now if it is really true that Egypt was a country completely out of touch with the Asiatic centre of civilization in early prehistoric times until the end of Naḳāda II. Is that a correct picture of the period when the culture of Tell Halāf flourished in Syria, and that of Al-'Ubaid in Mesopotamia, and the Iranian Highlands down to the coasts of the Persian Gulf were dotted with settlements all producing painted pottery? Have we no means of ascertaining the true state of affairs?

It seems that in the study of Egyptian painted pottery—and this holds good for the painted pottery of Naḳāda I as well as for that of Naḳāda II—too much attention has been paid to the glaring discrepancies between the Egyptian painted ware and that of Western Asia. This seems to have barred the way to a study of the similarities, and yet these are astonishing enough. "When contemporary civilizations [as those of Mesopotamia and Egypt of, say, Jemdet Naṣr times] are thus contrasted, the surprising result is not that there are palpable differences between them, but rather that the respective levels of the civilizations compared are essentially similar, provided that intercommunications between them existed," says E. A. Speiser in his brilliant essay *The Beginnings of Civilisation in Mesopotamia*.[3] "Predynastic Egypt and Mesopotamia differ materially as to contents." Speiser goes on, "But the tempo of progress shows no corresponding disparity." But is it really the *tempo of progress* only that is similar in both these important centres of civilization? Can we not go farther than that? A great number of details are astonishingly similar. This statement must now be more fully examined.

In both regions two periods of painted pottery succeed one another. In both the shapes of the decorated vessels alter as well as the technique and style employed in painting them. In Egypt polished red bowls and beakers without handles and painted in white are succeeded by urns painted in red on smooth greyish clay. These frequently have lug-handles. In Mesopotamia and Iran the earlier period also uses open bowls and beakers without handles, whilst the second phase employs urns with a smaller opening sometimes provided with lug-handles. In Mesopotamia monochrome painting is followed by polychrome, in Iran during the second period the paint is sometimes very brilliant as compared with the dull paint of earlier times. Everywhere strictly stylized and geometrical painting becomes freer and more naturalistic. In Iran, where painted pottery has its longest history, the period of Musyān and Susa I is separated from Susa II by a period characterized by a pottery which is plain, its decoration, if any, being incised. A period of unpainted, sometimes incised, pottery was discovered at Uruk, and there took the

[1] *Preh. Assyria*, pp. 4 f.

[2] By "Mesopotamia" here is meant the whole of the country between the two rivers—"Iraq" as well as Mesopotamia proper.

[3] *Antiquity* 15 (1941), p. 166.

name of Uruk pottery.[1] It separates the Jemdet Naṣr from the Al-'Ubaid period. In Egypt we find at the beginning of the Naḳāda II period a similar pottery, also decorated with incised patterns. This is not the so-called black-incised ware (*Corpus* type N), but the pottery which Miss Caton-Thompson found at Hammāmīya,[2] and which she called the herring-bone ware. Hammāmīya is the only town-site excavated in Egypt which has yielded a stratigraphy. The herring-bone ware was found on the floor of the hut circles. Some sherds of the red-painted ware came from the top of the fillings. This is not the only form of incised pottery in use during this period; other patterns occur which will be dealt with in detail in chapter IV, after the chapters on the painted pottery. The herring-bone pottery has been found also in tombs at Naḳāda; Petrie dated it to about S.D. 40.[3] We do not know enough of Egyptian prehistory to attribute this pottery in Egypt to a period of its own which would intervene between Naḳāda I and Naḳāda II, but its occurrence at the beginning of Naḳāda II must be kept in mind.

The attempt will now be made to show that there is a similarity in detail between the painted pottery of Egypt and its Asiatic contemporaries which cannot be explained as due to mere chance. At a first glance the great differences between the two at once catch the eye: in Iran and Mesopotamia the dark paint of the designs stands out clearly from the light background which is furnished by the well prepared and smoothed natural clay only rarely provided with a slip. In Egypt Nile mud is used to make the pots. This is an inferior material, and does not offer an even surface for the painter. He therefore used for his efforts a type of pottery which is one of the earliest known in Egypt: it is covered with a red slip mechanically polished (Petrie's " P ware"), on which the pattern is displayed in white. During the Jemdet Naṣr and corresponding cultures the Asiatic potters paint with two or three different colours on a background which is sometimes covered with a red slip. In Susa II the painting remains mostly monochrome; painting on a red slip also occurs occasionally. In Egypt, which in Naḳāda II has acquired the art of making pots out of a pure and good material, the vessels are painted in a brownish red on the finely smoothed clay. But the differences between these countries go beyond the technical outfit of the potter's art. The grand patterns of Persepolis, of Al-'Ubaid, and especially of Susa I are far superior to anything found on the painted pottery of Egypt. During the earlier period the Iranian and Mesopotamian artists fill the space they wish to decorate with a few bold but masterly strokes compared with which the work of the Egyptian potter looks like that of a beginner who has not yet learned to make full use of the material at his disposal. His patterns do not form a harmonious whole because they are not accurately enough calculated to fit the space which they are meant to fill. But this is a difference of quality rather than in spirit, and if we compare the tendency of the design as a whole, we shall see that the differences dwindle.

III. The Early Painted Pottery

On the earliest painted pottery in Iran and Mesopotamia as well as in Egypt a strictly geometrical style predominates, motifs taken from nature being rare. The chief elements of the designs are parallel lines, zigzag lines, several of which are often painted parallel to each other,

[1] I shall use the term 'Uruk pottery' in the wider sense that it has in the German Uruk publications, and not restrict it to the grey ware.

[2] *Bad. Civ.*, p. 76.

[3] *The Making of Egypt*, pl. 21.

triangles, cross-hatched and squared, diamonds joined in chains, squares, each stood on one corner, rows of triangles, pointing alternately in opposite directions, their bases joined along a single straight line, etc. The interior of a figure is frequently subdivided into squares by parallel lines or hatched. Some of these patterns are very characteristic and sufficiently out of the ordinary to make unlikely an independent origin in each of the countries concerned.

If we compare such patterns as that on a beaker from Susa I illustrated in Pottier's paper *Étude historique et chronologique sur les vases peints de l'acropole de Suse*[1] (fig. 4, 1) with that on

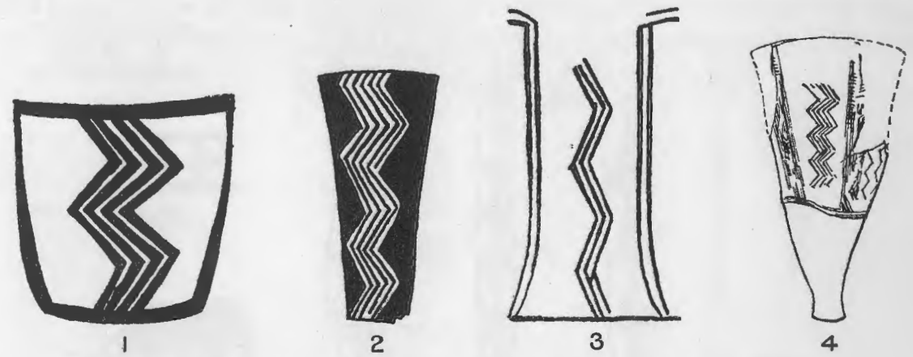


Fig. 4. 1. From Susa I; *Délég.*, XIII, pl. 9, 5. 2. From Persepolis; *Iran in the A.E.*, pl. 13. 3. From Egypt; *Preh. Eg.*, pl. 11, 15. 4. From Shahi-Tump; *Iran in the A.E.*, p. 47, fig. 79.

a beaker from Naḳāda I (fig. 4, 3) the resemblance is striking. In both cases a set of parallel zigzag lines is placed by itself in the centre of a field forming its only decoration. This is a common pattern on Iranian pottery. It has been found not only at Susa but also at Persepolis, in a most beautiful example (fig. 4, 2), and at Shahi-Tump (fig. 4, 4) farther to the east.

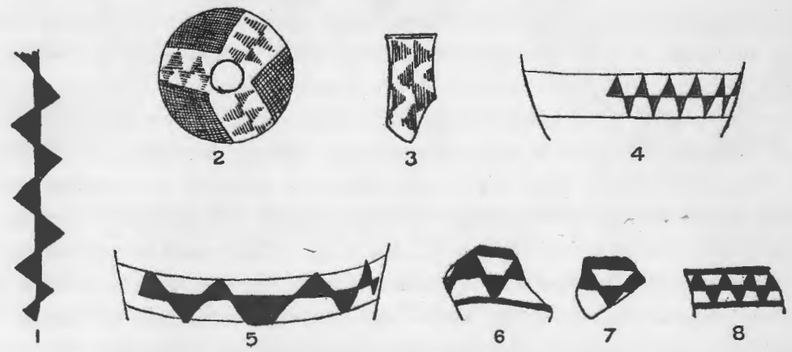


Fig. 5. 1. From Egypt; *Preh. Eg.*, pl. 18, 74. 2, 3. From Naḳāda; *Corpus*, pl. 22, C 35; pl. 24, C 77 M. 4, 5. From Susa I; *Délég.*, XIII, pls. 3, 6; 10, 8. 6, 7. *Al-'Ubaid*, pl. 18, 1807.1813. 8. *Tépé-Giyan*, pl. 58 (" tessons de 7 m. 50 à 9 m.").

Another unusual pattern found not only in Egypt and Iran but in Mesopotamia is that of alternating triangles, described above. A good example from Egypt is on the well-known vase with the dancing couple, now in University College, London (fig. 5, 1), and others may be seen

[1] In *Délég.*, XIII.

on vases C 35 and C 77 M of the *Corpus* (fig. 5, 2.3). From Susa I we may compare two vases in Pottier's publication (fig. 5, 4.5). The same motif figures also on two sherds published by Hall and Woolley (fig. 5, 6.7), and on pottery found at Tepe Giyān (fig. 5, 8).

Triangles, elongated and slim, arranged in rows so that the apex of the one touches the centre of the base of the next, form another curious pattern which occurs on the painted pottery of both the cultural circles concerned. It is found with the apexes pointing towards the rim of a beaker, or inside a bowl and parallel with its rim, in Susa I (fig. 6, 1-3), or with the apexes pointing towards the bottom of the vessel in Naḳāda I (fig. 6, 4.5). It is also met with arranged around the rim of the vessel on fragments from Arpakhīya (fig. 6, 6), and from Tepe Giyān (fig. 6, 7).

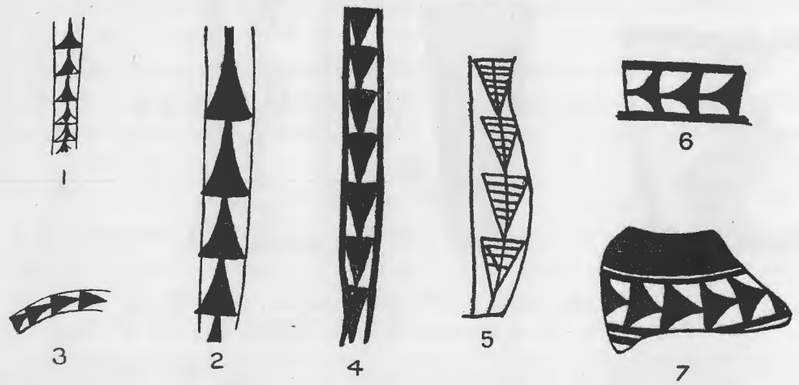


Fig. 6. 1-3. From Susa I; *Délég.*, XIII, pls. 5, 4; 8, 4; 15, 1. 4. From Naḳāda; *Naq. Bal.*, pl. 29, 75A. 5. From El-'Amrah; *El Amrah and Abydos*, pl. 15, 22. 6. From Arpakhīya; *Preh. Assyria*, fig. 62, A 764 (B). 7. From Tepe Giyān; *Tépé-Giyan*, pl. 45 (" tessons de 15 à 16 m.").

Triangles arranged in rows so that their bases touch each other are a common motif in Egypt, Mesopotamia, and Iran. These triangles are wholly filled in with paint on beakers from Susa (fig. 7, 1.2) or hatched and cross-hatched as on sherds from Sialk I (fig. 7, 3.4). They are arranged in two rows with their bases facing each other, separated by a narrow line formed by the surface of the pot. This is a very characteristic design, occurring in all three countries (fig. 7, 5.6). Triangles wholly filled with paint, triangles hatched or cross-hatched, are among the commonest motifs of the white-painted Naḳāda pottery. It is hardly necessary to quote a single vase, the whole *Corpus* is full of them (cf. fig. 7, 8). This motif is very widespread through the Asiatic countries of the painted-vase culture; it has been found as far to the north-west as Arpakhīya (*Preh. Assyria*, fig. 77, 38.41) and Tepe Gawra (pl. 64, 42), and as far to the east as Mohenjo-Daro (Sir John Marshall, *Mohenjo-Daro and the Indus Civilisation*, pls. 87, 1; 92, 6.18). The pattern is seen at its best when set in several rows around the rim inside a plate, as on the example from Sialk I (fig. 7, 7), or that from Egypt (fig. 7, 8). It is not quite such a favourite on the Asiatic side as it is in Egypt. The cross-hatched square stood on one corner and the cross-hatched diamond are far more frequent in Asia (fig. 8, 1-7). Susa I prefers the chain of diamonds or squares, entirely filled in with paint (fig. 8, 2.3). These are so common that they are found on nearly every page of Pottier's publication. Al-'Ubaid has both the cross-hatched and the plain ones (fig. 8, 5.6). This pattern figures most conspicuously on the beautiful coloured

plate 49 of *Al-'Ubaid*. It is no stranger in Egypt, for it is found on the fragment of an egg-shaped vessel from Naḳāda, tomb 1497 (pl. 8, 3; fig. 8, 8), on an oval dish in the *Corpus*, type C 2, and in a most interesting pattern on a pot from Badāri, grave 1743. In the last-mentioned example it is set in a whirl which revolves round a circle on the bottom of the vase; the circle is filled with dots, and so are the intervals between the arms of the whirl on the edge of the vase (fig. 8, 9).

The similarity between the patterns of Egyptian painted pottery and that of the Asiatic circle

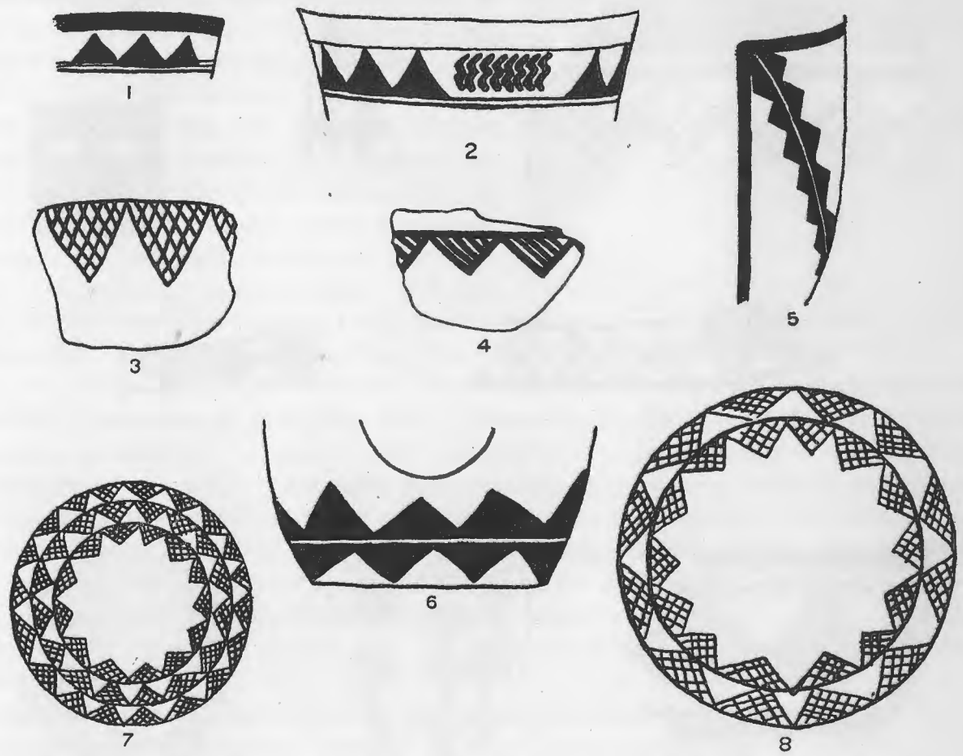


Fig. 7. 1, 2, 5. From Susa I; *Délég.*, XIII, pl. 7, 4.7; pl. 8, 4. 3, 4.7. From Sialk I; *Sialk*, pl. 44, D 8; pl. 43, A 2; pl. 38, S. 1291. 6. From Naḳāda; *Naq. Bal.*, pl. 29, 91. 8. *Preh. Eg.*, pl. 12, 29.

is shown very well by a pot type C 47 of the *Corpus*, more clearly illustrated in *Cem. Arm.* (fig. 9, 1); it is the same as that on a painted pot from Arpakhīya (fig. 9, 2).

Before going on to discuss the similarities of patterns painted on pottery in so widely separated areas it seems advisable to deal with an objection which has been brought forward against such a method. Can we really assume that these patterns depend on each other, and have not been invented separately in each of the countries concerned? Is it not much more likely that they have been taken from patterns which appeared naturally, so to speak, on vessels from another material, e.g. baskets or leather work? The patterns of plaited baskets, especially, have been claimed as underlying the motifs on the white cross-lined pottery of Egypt, whilst the seams of leather beakers have been thought to be the prototype of other designs. There is little doubt

that in some cases the technique of another material has given the idea for the pattern used by a potter on clay. The question is: can we prove it in our particular case, and if so, what do we gain by it? The specimens of prehistoric Egyptian baskets which have been preserved are all made in one technique. Miss W. Blackman, who has investigated the basketry found at Badāri, thus describes them: "All the above specimens [of fragments of predynastic basketry] show

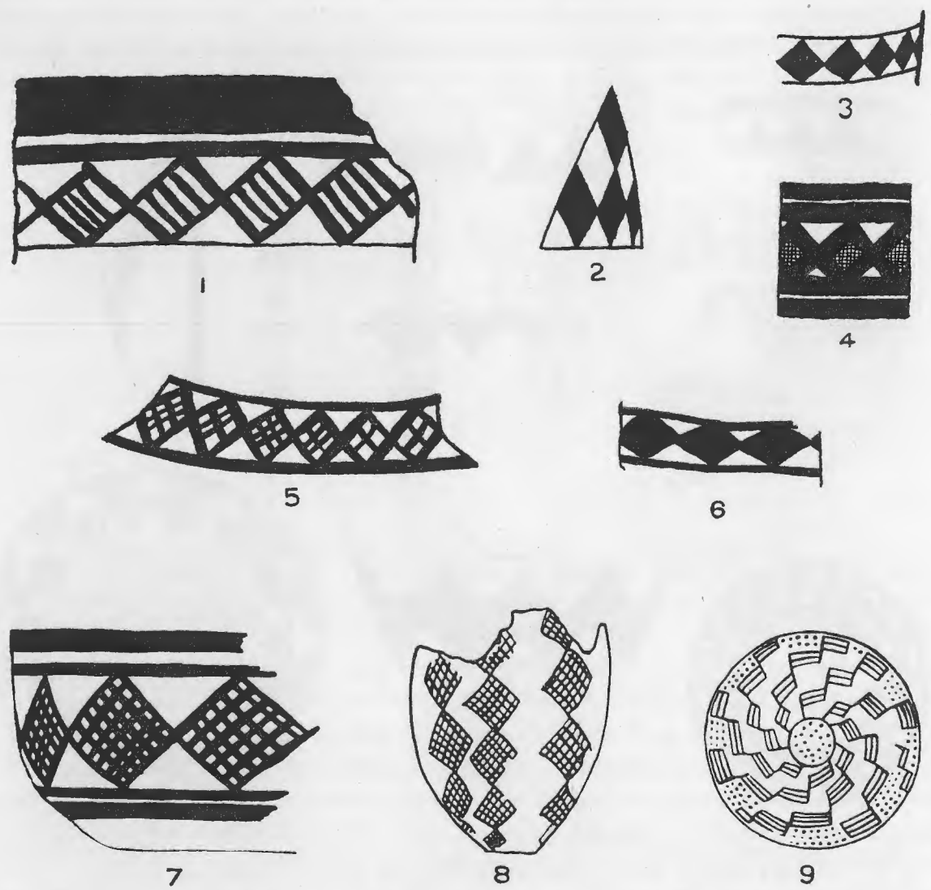


Fig. 8. 1. From Musyān; *Délég.*, VIII, fig. 166, p. 105. 2, 3. From Susa; *Délég.*, XIII., pls. 7, 6; 8, 2. 4. From Uruk; *Warka* IV., pl. 18A. 5, 6. *Al-'Ubaid*; pls. 49, T.O. 515; 17, 1812. 7. From Arpakhīya; *Preh. Assyria*, fig. 71, 7. 8. From Naḳāda; *Naq. Bal.*, pl. 29, 74. 9. From Badāri; *Bad. Civ.*, pl. 38, 50s.

similar technique, the work being the same as in many modern Egyptian baskets. The foundation consists of a number of splints sewn over and over with a more flexible material, probably palm-leaves split longitudinally to the required width. Such baskets are built up on a spiral coil, as at the present time."[1] If the Egyptian potter had imitated the patterns of baskets of that technique, he would needs have come to spiral motifs, and not to those characteristic of the white painted pottery. True, there may have been other baskets made in another technique

[1] *Bad. Civ.*, p. 63.

which have not survived. But apart from the improbability that all surviving prehistoric baskets should be of the same technique if others had existed, to assume the existence of these others would be a mere hypothesis, and one which would not even be of much value for the solution of the problem. It would push the question one stage farther back, so that what may now be said of the potter and his motifs would then apply to the basket-maker, namely that the Egyptian and the Asiatic depend on each other for their patterns. The patterns already mentioned and those to follow are complicated enough not to be *natural* products—quite the contrary. They were invented to convey a certain meaning. This was first discovered amongst modern primitive peoples. The patterns they paint on pots or on more perishable material, or with which they cover their bodies, are symbols understood by those who see them. To the modern ethnologist the sense has been explained by the living objects of his studies; the archaeologist concerned with cultures long extinct is in no such favourable position. The original magical significance of these patterns will escape us in many cases, but some work has been done on this subject. One of the first to venture an opinion was P. Toscanne in his *Études sur le Serpent*.[1] He begins his article by explaining the parallel zigzag lines (his fig. 1) as stylized serpents. We shall return to this later and see how far he is right. Unfortunately his efforts are weakened by the assumption that these serpents are connected with Adam and Eve and Paradise. After him the matter was taken up by Dussaud in his article *Motifs et symboles du IVe millénaire dans la céramique orientale*,[2] and by Herzfeld in *Iran in the A.E.* Dussaud's work will be followed here, taking his patterns one by one and supplementing them where necessary by Herzfeld's results. A discussion of these and a comparison of them with similar motifs on Egyptian pottery will complete this survey of the patterns.

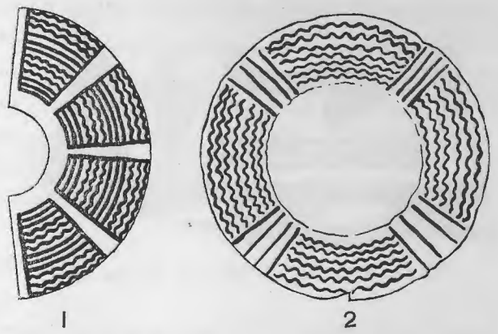


Fig. 9. 1. From El-'Amrah; *Cem. Arm.*, pl. 28. 2. From Arpakhīya; *Preh. Assyria*, fig. 57. Note that 1 and 2 are shown by different methods of projection; 1 is a development of the pattern on the jar.

Dussaud begins his observations (p. 377) with the motif of the wavy line. "Sans contester la valeur décorative de la ligne ondulée," he says, "on nous accordera . . . qu'elle a servi au céramiste à rappeler la destination du vase préparé pour contenir un liquide, d'où le nom qu'on lui applique souvent de 'ligne d'eau.' Les lignes d'eau abondent dans la céramique archaïque du IVe millénaire." (*Footnote:* "Très caractéristique est le motif de l'animal s'abreuvant à des lignes d'eau, Ghirshman, *Syria*, XVI, p. 233, fig. 2 [see my fig. 10].") This is said about the undulating or zigzag lines painted horizontally on the vase. For the same motif placed vertically Dussaud refers (p. 378) to the early form of the Phoenician letter *mēm*. "Une preuve de la valeur 'ligne d'eau' attribuée au zigzag vertical est fournie par la forme primitive du *mem* phénicien." (*Footnote:* "Forme dans l'inscription d'Ahiram et sur un vase de Tell Douweir, voir *Syria*, XVI, p. 419. Seule la forme archaïque du *mem* a pu faire attribuer à la lettre le nom de *mayim*=les eaux, vocalisé déjà *mîm* ou *mêm* dans les gloses des tablettes d'el-Amarna.") "Et cela prouve que les scribes qui ont créé cette lettre l'ont déduite du répertoire asiatique et nullement de l'écriture égyptienne, où le zigzag est

[1] *Délég.*, XII, pp. 159 ff.

[2] *Syria* 16, pp. 375 ff.

couché sur la ligne et a la valeur *n* et où l'eau *mw* est figurée par trois zigzags couchés sur la ligne." These statements must be examined critically, for they bear directly on the thesis here put forward. In the first quotation Dussaud states that the horizontal zigzag lines are a symbol of water; in the second he maintains that the same meaning must be given to the vertical zigzag, and tries to prove this from the shape of the Phoenician letter *mēm*. He thus implicitly asserts that symbols used on the prehistoric painted pottery have influenced the formation of the letters of the Phoenician alphabet. He uses this last conclusion to maintain that the Phoenician alphabets must have been derived from the "Asiatic" writing, and not from the Egyptian, since in Egypt the three water-lines meaning *mw* "water" "are lying on the line and do not stand upright."

Fig. 10. From Sialk; *Syria* 16, p. 233, fig. 2.

A year after the publication of Dussaud's article in *Syria*, A. Falkenstein published his *Archaische Texte aus Uruk*.[1] The oldest tablets there described were found in a stratum which belongs to the Uruk culture. This corresponds roughly to the end of the Naḳāda I period in Egypt. With this very early material we are brought back to the very beginning of writing. Though the script is pictographic, Falkenstein observes that only a minority of the signs are really easily identifiable pictures, the rest being symbols which give only a stereotyped abbreviation of the object, or in which the original picture can no longer be recognised at all.[2] Those signs which are "distinctly pictorial" (*deutlich bildhaft*) mostly represent objects which do not occur often; that is to say the bulk of the earliest Sumerian signs are symbols that were already in use and commonly understood before the invention of writing. Falkenstein thinks that these signs were taken from the inventory of the early glyptic, but they existed on pottery before the invention of glyptic and Dussaud is justified in seeing in the designs of vase-painting the prototypes of the hieroglyphs. If we now look up the sign for "water" in Falkenstein's table of signs we shall find on p. 189 two horizontal wavy lines.[3] They are later transformed into the cuneiform sign ≋, Sumerian *a*, Akkadian *mu*, "water." Horizontal lines symbolizing water are likewise found on seal-cylinders of the early dynasties of Akkad. One of the most beautiful examples is on the seal of a servant of Sargon I, representing two kneeling men holding in their hands vases from which flow streams of water. Between the men, and each facing one of them, are two buffaloes which drink from these streams. Underneath this scene a river is represented by parallel *horizontal* lines.[4] If we now turn to the Egyptian material we shall find that here the matter is different. A glance at any Egyptian relief or picture from the earliest times onwards will show that water is represented by *vertical* zigzag lines. One example only need be given from each of the great periods of Egyptian history: the mace-head of the Scorpion King, a river with fish from the tomb of King Saḥurē', a hieroglyph meaning "pond" from the Middle Kingdom, and a picture from a relief of Ḥatshepsut at Dēr el-Baḥri (fig. 11, 1-4). Whenever the Egyptians wanted to convey the idea of a pond, a canal, a river etc. filled with water they covered the picture of it with upright zigzag lines. This can hardly be explained as a naturalistic representation. The

[1] *Ausgrabungen d. Deutschen Forschungsgemeinschaft in Uruk-Warka*, Bd. 2 (1936). [2] *Op. cit.*, pp. 25 f.

[3] It must be borne in mind that the signs in Falkenstein's list are turned 90 degrees so as to bring them in line with the later cuneiform. See *op. cit.*, p. 11. [4] Reproduced in H. Frankfort, *Cylinder Seals*, pl. 17, c; see also pl. 19, e, f.

vertical zigzag must have been familiar to the Egyptian as a symbol for water, and can only have been thus understood. Dussaud's thesis is therefore proved to be correct, though not from what he calls *le répertoire asiatique*. But we can go farther than this and follow the vertical water-lines right up to the beginning of Egyptian script. Whether this has some bearing on the origin of the Phoenician letter *mēm* does not concern us here, but its derivation from upright water-lines will not help to prove its Asiatic origin, for such lines are typically Egyptian.

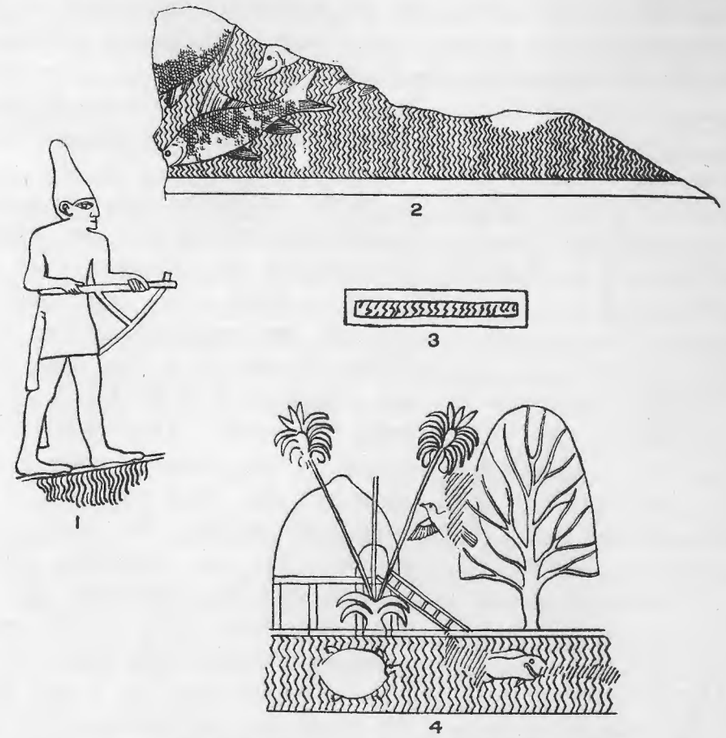


Fig. 11. The water-lines in Egypt. 1. Archaic; Quibell, *Hierakonpolis*, I, pl. 26 C, 4. 2. Old Kingdom; Borchardt, *Grabdenkmal d. Königs Sahure'*, II, pl. 14. 3. Middle Kingdom; Griffith, *Hieroglyphs*, pl. 7, 90. 4. New Kingdom; Naville, *Temple of Deir el Bahari*, pl. 69.

The earliest remains of writing in Egypt go back to the beginning of the First Dynasty or a little earlier, and as suggested on p. 48 above, seem to show the influence of the writing invented at a still earlier period in Western Asia. In Egypt we find the earliest hieroglyphs inscribed on vases, where they are thought to indicate the contents of the vessel,[1] the older idea that they were owners' or potters' marks not being satisfactory. They are found on seal-impressions, also on the seal-cylinders themselves, some of which have been preserved, and on a few wooden or ivory tablets. One of the commonest signs on the large pots which were receptacles for wine or other beverages is two zigzag lines standing upright, and most often associated with other signs which we cannot read (fig. 12, 1.4). These signs have been found throughout Egypt, on the

[1] Zaki Yusef Saad in Emery, *Tomb of Hemaka*, pp. 49 ff.: "The Pottery and Pot-Marks"; Emery, *Ḥor-Aḥa*, pp. 74 ff.: "Pottery Inscriptions"; Sidney Smith in Sir John Marshall, *Mohenjo-Daro and the Indus Civilisation*, p. 419.

vases of the Royal Tombs at Abydos (fig. 12, 1), where Petrie takes them to be serpents,[1] as well as in the north, on pots from the tomb of Ḥemaka (fig. 12, 3) or from Tarkhān (fig. 12, 4). They were later written horizontally as in Mesopotamia, but there is nothing to show whether this was done in Egypt independently or in recollection of a Mesopotamian prototype.[2]

The earliest well-dated example of the two horizontal water-lines comes from the tomb of Ḥor-Aḥa at Ṣaḳḳāra. One gains the impression that the scribe who was responsible for this inscription did not feel quite sure that these two horizontal zigzags would be correctly understood, and that therefore he wrote on top of them a large *m* as a phonetic complement (fig. 12, 2). On the shoulder of a similar vase from the tomb of Ḥemaka (fig. 12, 3) we find the same two horizontal water-lines, this time by themselves, which tends to show that at the time of "Den" this writing had become familiar.

Fig. 12. 1. Jar from Abydos with pot-mark; *Royal Tombs*, I, pl. 39, 7. 2. Similar mark from the tomb of Ḥor-'Aḥa, Ṣaḳḳara; Emery, *Ḥor-Aḥa* p. 33, fig. 36. 3. From the tomb of Ḥemaka, Ṣaḳḳara; Emery, *Tomb of Hemaka*, pl. 41, 228C.229D.280AA. 4. From Tarkhān; Petrie, *Tarkhan*, II, pl. 21.

On the inscriptions of the early seal-cylinders water is commonly written with two horizontal zigzags. Unfortunately the cylinders from private graves cannot be dated within close limits. The earliest one with two water-lines is from Diospolis Parva (Petrie, *Scarabs*, pl. 3, 82), dated S.D. 65 to 76,[3] and a fragment from El-'Amrah (*op. cit.*, pl. 2, 56) dated S.D. 78-80. Thus both belong to the beginning of the dynasties, since Petrie puts King *Dt* at S.D. 80. More interesting is a cylinder-seal from Naga ed-Dēr, No. 1605, 7, published by Reisner. The two water-lines are there in conjunction with the hieroglyph *ḫntj*. Reisner wants the group to be a title, reading *ḫntj-mw*, "possibly '*Overseer of the water*'(?)." This group is followed by the letter *n*, and Reisner remarks: "It seems that we have here *mw* and *n* written differently."[4]

From the water-lines Dussaud turns to various animal motifs found on the Susa I pottery. He believes that rows of animals were arranged around the mouth of a vase because they were thought of as drinking out of it. The elongated necks of some of these animals, especially birds, were a trick of the artist to the same end. Since rows of animals occur very rarely amongst the motifs of the Naḳāda I painted pottery,[5] and then without elongated necks, we need not discuss them. The bull's head also we may leave aside, though we shall come back to it when dealing with the amulets of Naḳāda II. It may be that there was some connection even with the cow-horns of the mother-goddess from Naḳāda I, and ultimately with the Hathor head. Our Egyptian material,

[1] *Royal Tombs*, II, p. 47, 78-94.

[2] *Two* horizontal zigzag lines mean water in the Indus script also; see Sidney Smith in Marshall, *op. cit.*, p. 450.

[3] *Diosp. Pa.*, p. 36, pl. 10.

[4] G. A. Reisner, *Early Dynastic Cemeteries of Naga-ed-Dêr*, I, p. 122, with n. 3, and pl. 44.

[5] Ayrton and Loat, *Predynastic Cemetery at El Mahasna*, pl. 27, 12.

however, is still too slender to make a discussion worth while.[1] It is different with Dussaud's next motif, the serpent. He says (p. 379): "Le serpent est toujours représenté rampant le long du vase pour en atteindre le bord supérieur." Here we are back at Toscanne's motif. Of the examples quoted by Dussaud, that on p. 380, fig. 7 shows the parallel zigzag lines, so familiar from the pots of Susa I and of Naḳāda I, and in front of them, more naturalistically drawn, a serpent standing on its tail. In this case there can be no doubt that these zigzag lines mean water, and that the snake standing upright on its tail is distinct from them. Is Toscanne, therefore, completely wrong in his argument, and is the snake always shown so that it can be unmistakably recognized? This is by no means so, and Dussaud himself sums the problem up by saying (p. 380): "En tout cas, . . . le génie familier ainsi représenté [i.e. the erect serpent] tend à se confondre avec le zigzag figurant la ligne d'eau verticale." Thus we have to reckon with the meaning "serpent" for the vertical zigzag line also.

For Egypt it seems to me impossible to determine whether some of the zigzag lines on the white-painted pottery were meant to represent serpents or not. We cannot exclude the possibility with certainty, for we know that representations of serpents occur as early as the Naḳāda I period. There is one among the various animals inside a bowl first published by De Morgan.[2] Here the zigzag line ends in a head, so that the reptile is unmistakable. A beautifully cut ivory hairpin, its top formed as a serpent, was found in Naḳāda tomb 1654. The zigzag representing the body ends in an oblong head. The pin is dated to S.D. 34. With it were found pot F 60, standing as it were on a pedestal, a cylindrical stone vase, type S 174, and a disk-shaped mace-head (pl. 9, 1).

Dussaud does not discuss other animal motifs, but Herzfeld mentions a few that are of interest in this context, namely those representing domesticated animals. The sheep and the goat are those met with most often. "The horns of sheep," says Herzfeld,[3] "are always shown in front-view, whereas the horns of goats are in profile." This is said of the vase paintings of Persepolis, but the same is true of the Egyptian artist. The slender vase shown on pl. 8, 4 . 5 is one of the best efforts of Egyptian art known from the Naḳāda I period. Around the neck and bottom of the vessel are two rows of solid triangles facing each other. Between their bases a small strip of the red background is left free. This is the pattern for which Herzfeld claims the meaning "river between mountains." Discussion of this will be found on page 66 below. The middle of the vase is decorated with a number of horned animals which populate the landscape indicated by the "river between mountains" motif. The largest of them is a ram with wide horns, both given in full view, as are the ears underneath, while the rest of the animal is in profile. On the opposite side of the vase is a smaller quadruped, evidently a goat, both its horns pointing in the same direction. What the other animals, with the curious balls on the tips of their horns, are meant to represent, I do not know. The vase was found together with two others of similar design at Naḳāda, tomb 1644;[4] it is now in the Ashmolean Museum, Oxford.

The wild animals which occur on the vases of this early stage are those with which the people of the different countries were familiar and the chase of which must have played an important

[1] The bull's head was one of the symbols taken over by the Sumerian script, see Falkenstein, *op. cit.*, p. 12 of the Zeichenliste, no. 44: reading *alpu*, ox. This reappears in the Phœnician alphabet as the letter *aleph*.

[2] *Recherches sur les origines de l'Égypte* (1896), pl. 2, 5. Also *Preh. Eg.*, pl. 23, 2, where the drawing of the hippopotamus and the boat seems to be more correct.

[3] *Iran in the A.E.*, p. 49.

[4] *Naq. Bal.*, pl. 29, 91.93.95.

part in those people's economy. But it is interesting to compare the huntsmen. On a vase from Susa I (fig. 13, 1) an archer is seen holding his bow ready to shoot the arrow. His head, and his legs up to the waist, are drawn in profile, while his torso is shown in front view. His head is adorned with two feathers, and he is wearing a belt. The little picture, though sketchy, is full of life and movement. His Egyptian comrade (fig. 13, 2) is holding bow and arrows in one hand while with the other he grasps the leads of his four dogs. As with the Susa archer his legs up to the waist and his head are drawn in profile whilst his torso is shown in front view. His head-gear is a single feather, and he, too, wears a belt. Both these little figures are very closely related to each other, though the Egyptian artist did not succeed quite as well as did the Elamite when drawing the human figure. On the other hand, the bow of the Egyptian archer is the more characteristic of the two.

Fig. 13. 1. Archer from Susa I; *Délég.*, XIII, p. 37. 2. Egyptian archer from the Golénischeff Vase; *ZÄS* 61 (1926), pl. 2, 2.

Men are not commonly represented during the earliest stage of the painted pottery period. But there is one more pattern mentioned by Herzfeld to which some attention must be given. It is the "men in file" motif.[1] It does not occur in quite the same way in Egypt as it does in Asia, yet, I think, the comparison is interesting enough. On the Egyptian vase from the Musées du Cinquantenaire in Brussels published by Scharff (see fig. 14), eight figures are represented. Two of them, larger than the others, are men. They are drawn in full front view, both legs showing. Their arms are raised in what is probably an attitude of dancing. It is the same pose as that of the man on the white painted vase with the dancing couple, now in University College, London,[2] and it survives into the age of the red-painted pottery, as we shall see later. The men on the Brussels vase have short, curly hair shown as dots around the heads; twigs are stuck into it. Along their legs are rows of dots which may indicate the roughness or hairiness of the skin in contrast to that of the women; to show this outside the body is a primitive expedient which the artist uses also when painting the distinctive organs of the sexes.[3] The women dance between the men in a sort of file. They are arranged in pairs. Two of these surround one of the large male figures. The women nearest to it raise one arm which they lay on its shoulder, while the one farther away lays hers on the shoulder of the woman in front of her. The other man seems

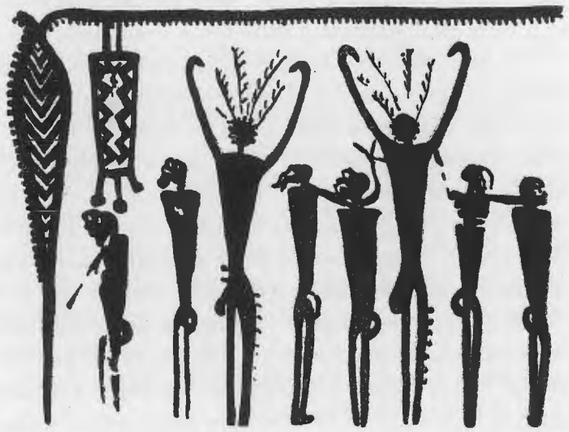


Fig. 14. Egyptian Vase, now in Brussels; *JEA* 14 (1928), pl. 28.

[1] *Op. cit.*, p. 99.

[2] *Preh. Eg.*, pl. 18, 74, reproduced by Scharff in *JEA* 14 (1928), pp. 267 f., fig. 4.

[3] Scharff throughout takes the women for men, and therefore cannot explain the differences in the representation of the figures.

to be performing by himself. The remaining pair of women are not joined to him nor to each other. The one is drawn without arms, the other, farther away from the male, seems to point with her arms away from him. (For obvious reasons the drawing has had to be made from the photograph published by Scharff, and not from the original in Brussels, as it should have been.) This last woman is drawn smaller than the rest in order to leave enough space for the symbolical object suspended above her. Next to it is suspended another larger object reaching to the bottom of the vase. Their meaning is unknown to us, and it is not obvious from the picture what they have to do with the ceremony performed. Nor have we any clue as to the nature of the dance, if it is one. As everywhere in the circle of the earliest painted vase culture, the painter does not give any details when drawing the faces of his figures; they are mere blots. The women have long, flying hair as have those from Samarra.[1] The sherds from Iran with the "men in file" motif are too small to allow even a guess as to how many people were represented, and whether they were all of one sex. (Some of the "men," if not all, seem to be women.) The figures are stylized and uniform, fitting into the geometrical art of their time. The Egyptian artist, attempting a more ambitious presentation, has succeeded well in conveying his conception of a lively scene without much naturalistic detail. This little picture may well represent the beginning of Egyptian art, for it contains some of the outstanding characteristics of dynastic wall painting—but this will be discussed later.

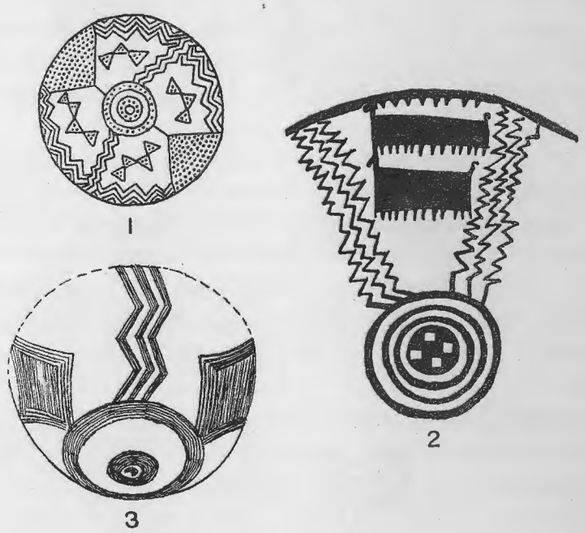


Fig. 15. 1. From Badāri; *Bad. Civ.*, pl. 38, 44t. 2. From Susa; *Syria* 16 (1935), p. 382, fig. 10. 3. From Persepolis; *Iran in the A.E.*, p. 46, fig. 77.

Dussaud's next subject is the pond round which animals are grouped as though drinking from it. The pond is depicted by a circle or a square at the bottom of the vase or in some place where the painter could find room for it. Sometimes it is filled with water-lines, sometimes a water animal, a plant, or even a Maltese cross is used to convey the meaning. Water-lines run into the pond as if to fill it. This motif does not seem to have been a great favourite with the Egyptians; circles at the bottoms of vases there are, but it is doubtful if many of them represent ponds. On two similar Egyptian vases hippopotami are seen grouped round the centre. A double circle is drawn round the bottom of the one (*Corpus*, C 49 E), four fish occupy the centre of the other (*Corpus*, C 49 H). It is a pleasant and plausible explanation to call the little picture hippopotami round a pond. No example is known to the author of a circle filled with water-lines, but there is one in which water-lines run into the circle in the middle of the vase. We may well compare the drawing of the bowl found at Badāri (fig. 15, 1) with those of vases from Susa I and from Persepolis (fig. 15, 2.3). The centres of all three are surrounded by concentric circles.

[1] *Iran in the A.E.*, p. 30.

Two bundles of zigzag lines (four on the Susa vase, fig. 15, 2) coming from the edge of the pot strike the outer circles at opposite points. The vase from Persepolis shows this scheme in its simplest form, the zigzag lines alternating with diamonds set on one corner. The bowl from Susa I has "comb-animals" in the intervals between the zigzags. The Badāri vase has by far the most complicated pattern; here the zigzag bundles alternate with triangles filled with dots, their apexes joined to the outermost circle by straight lines. From these triangles start other zigzag lines round the edge of the bowl, stopping short at the bundles of zigzags running towards the middle circles. The intervals between the decorated edge and the circles are filled in by

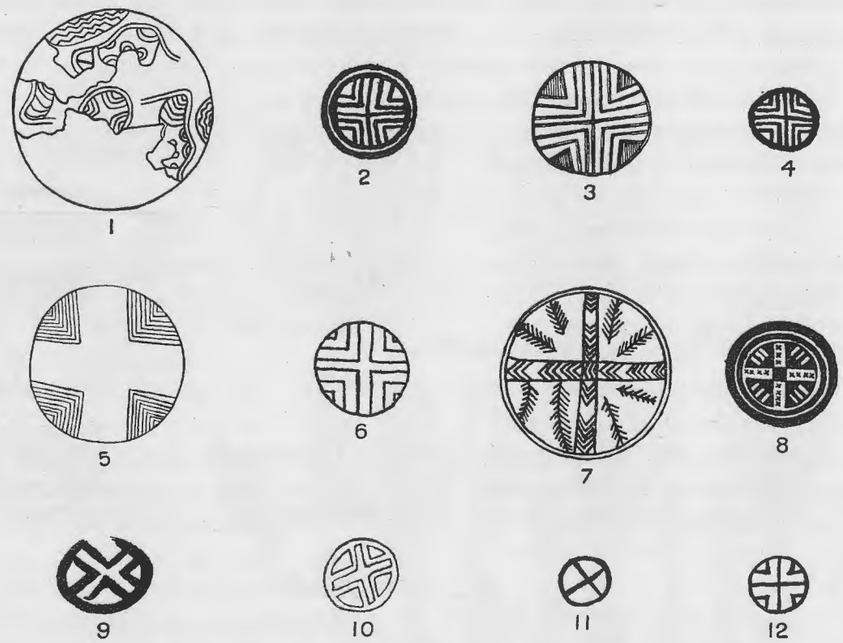


Fig. 16. 1. From Badāri; *Bad. Civ.*, pl. 38, 49k. 2, 7. From Naḳāda; *Naq. Bal.*, pl. 28, 22 (centre of design). 42. 3. From Persepolis; *Iran in the A.E.*, p. 23, fig. 21. 4, 6. From Susa I; *Délég.*, XIII, pls. 21, 4; 15, 4. 5. From Diospolis; *Diosp. Pa.*, pl. 14, 27. 8. From Susa I; *Délég.*, XIII, pl. 14, 2. 9, 10. *Royal Tombs*, II, pls. 5A, 10; 16, 114. 11, 12. *Hierakonpolis*, I, pl. 38.

the motif of alternating triangles. Herzfeld[1] suggests for the Iranian version of this pattern a meaning connected with heaven as opposed to that of the "river between mountains" motif which represents the earth. Whether the sophisticated Egyptian design was intended to convey a similar idea must for the time being remain an open question.

The discussion of the "pond" motif may be rounded off by describing one more vessel from Badāri, unfortunately preserved only in fragments. It is the vase C 49k from tomb 1649 (fig. 16, 1). Probably four animals were grouped around the middle of the vase, one of them being completely lost. The two best preserved have long horns shown in profile; Brunton thinks they may be buffaloes. A double line encircles the middle, enclosing a pattern of triangles leaving vacant

[1] *Iran in the A.E.*, p. 46.

between them a space shaped like a Maltese cross. This, then, is a perfect example of Dussaud's motif: the animals surrounding a pond from which they are about to drink, and the pond itself represented by the cross with four equal arms. Here and on the pot from Diospolis (fig. 16, 5), the cross is shown in the negative, as on a vase from Susa I (fig. 16, 6). The same device of the superposed triangles is used in both cases for cutting out a cross-shaped part of the circle. In a similar design from a Naḳāda vase the middle is filled with a cross drawn in thin lines (fig. 16, 2). The same pattern is found in Persepolis (fig. 16, 3), and in Susa I (fig. 16, 4). Though the Maltese cross may be a symbol for "pond" on the Badārian vase (fig. 16, 1), and on the examples quoted from Iran, it is hard to dissociate it in Egypt from a later hieroglyph, namely the word-sign for a village, town, or other inhabited region. In its earliest forms the hieroglyph is written with or without the central linear cross (fig. 16, 9-12). It is usually explained as a settlement where the main streets cross each other in the middle at right angles. We do not know of any circular village in Egypt, and the main streets crossing each other at right angles seem to be more characteristic of a Roman *castrum* than of a prehistoric oriental town. A sign similar to fig. 16, 11 from the Uruk tablets is equated by Falkenstein (no. 761) with the Assyrian , which means "to take," "to take possession."[1]

But the cross with equal arms is the centre-piece of one more pattern which was known to Susa I as well as to Egypt (fig. 16, 7.8). The cross-bars, though of equal length, are thinner than those of the common Maltese cross. They are decorated with a small design—superposed angles on the Egyptian pot, small crosses on that from Susa I. The spaces between the arms of the central figures are filled with a branch-like pattern in the Egyptian example, whilst the one from Susa has a more stylized motif. In spite of the differences, the general impression made by the two paintings, complicated as they are, is similar enough, and the symbolism, though unknown to us, will have been the same.

Had there been time to extend this study and continue these comparisons of vase patterns, carefully collecting and cataloguing the Egyptian material, the conclusions here reached would be increased and intensified. But there would remain one difficulty, namely the impossibility of dating the Egyptian material within closer limits than its epoch. All of it (with the exception of the few sherds from Hammāmīya) comes from tombs, and we have no means of ascertaining its relative age. The sequence dating will not help us much. Petrie gives the white cross-lined pottery a duration from S.D. 31 to 34;[2] Brunton wishes to extend it throughout Naḳāda I. Only a stratified excavation in a settlement can provide the facts necessary for an exact dating of this ware, and only then can a history of the development of the different patterns be attempted.

To conclude this study of the white-painted Egyptian pottery a description may be given of a motif which neither Dussaud nor Herzfeld has mentioned. For want of a better name I shall call it the net pattern. It occurs in two very good examples at Sialk (fig. 17, 1),[3] and on a pot from Naḳāda (fig. 17, 2). In each case stripes filled with a net-like design originate at the edge of the bowls and run towards their centres. They taper and meet in the middle on the pots from Sialk, while on the Naḳāda bowl they taper towards a sort of blot which occupies the centre. While they are the only ornament on the Egyptian pot, in the Sialk examples the spaces between the

[1] The sign is found on the most ancient button-seals, cf. *Iran in the A.E.*, pl. 16, from Giyān, and *Sialk*, p. 56, from Sialk III.

[2] *Preh. Eg.*, p. 14.

[3] *Sialk*, pls. 45, S. 1570; 46, S. 1737.

stripes are filled with a secondary motif, different on each pot. The number of the net-filled stripes varies on each vase—five on the one from Naḳāda, four and seven on those from Sialk.

It was stated on p. 53 above that the shapes of the painted pottery of this early age are similar in Egypt and in the Asiatic countries concerned, while they differ from those of the later painted pottery. There are four main shapes that are characteristic. A hemispherical bowl which has its decoration painted on the inside, and a high beaker-like vessel which is painted outside, are by far the most frequent (fig. 18, 8-10). The shapes of these pots are not identical everywhere, but are similar enough to make a common prototype probable. The third shape is the chalice, a hemispherical bowl fixed to a tubular stand. The main decoration is inside the cup; a simpler pattern sometimes adorns the outside (fig. 18, 1-5; pl. 8, 2). The chalice is a common form in Sialk II and III; a related form with a somewhat flatter bowl occurs as early as Sialk I.[1] There are several examples from Susa I.[2] In Egypt it is characteristic of the Naḳāda I period, where it occurs not only with the white cross-lined pottery but also with the red polished and black-topped ware.[3] It seems to be absent from Mesopotamia. Frankfort counts the chalice among his Anatolian pottery, which he thinks is responsible for the pottery of the Uruk period of Mesopotamia.[4] It is only one out of his three types, but I find it difficult to follow him, and to derive the Iranian chalices from Anatolia, though this shape was known in Iran from a date earlier than the Uruk period in Mesopotamia. Its presence in Egypt can, I think, be explained only by Iranian influences; it vanishes with Naḳāda I.

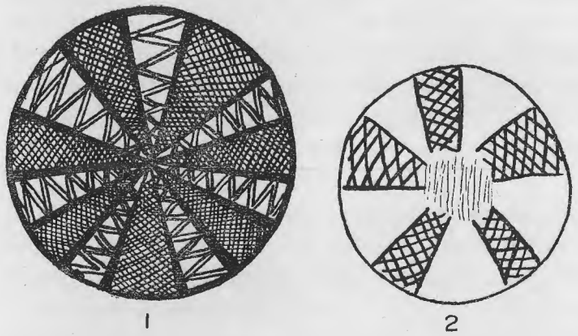


Fig. 17. From Sialk, Période II; *Sialk*, pl. 46, S. 1737.
2. From Naḳāda; *Naq. Bal.*, pl. 28, 44.

The fourth type is a little pot with carinated sides and a small opening which is provided with an upright neck (fig. 18, 6.7). It occurs in Susa I and also in Al-'Ubaid, where Woolley has classified it as his type P. IX;[5] it is rare in Egypt. With its little straight neck it will be picked out at once as different from the Egyptian pottery, which lacks such necks. Its occurrence among the painted vases of the Naḳāda I period forms one more link connecting this ware with the early painted pottery of Iran and Mesopotamia. These four are, of course, not all the shapes that occur among the painted pottery of Naḳāda I. There are others which are peculiar to it, and which do not occur on the Asiatic side: the beautiful "flower vase" with gracefully curved body (*Corpus*, type C 76) and the "communicating tubes" (*Corpus*, type C 80-91) seem to be inventions of the Egyptian potter. The case is similar in Iran and Mesopotamia, where forms are met with which are not found in Egypt. Doubtless, however, there are other shapes in Egypt and Western Asia that are related to each other. A more detailed investigation must be left to further research. What is sought here is to demonstrate that not only a great number of patterns are

[1] *Sialk*, pl. 38, S. 1291 and S. 1567. [2] *Délég.*, XIII, pls. 11, 4; 12, 1; *Mém. Miss. arch. Perse*, XXV, p. 201, fig. 39.
[3] *Corpus*, pl. 16, type F 27. See also pl. I, 2.
[4] *Archeology and the Sumerian Problem*, p. 38 and Table III. [5] *Al-'Ubaid*, p. 158.

alike in both cultural circles, but also the shapes of a number of vases on which these patterns are displayed. Nor are all the patterns equal favourites in Asia and Egypt. Many characteristic ones have not found their way to the valley of the Nile. The swastika so prominently figuring on vases from Persepolis and other Iranian sites is unknown to prehistoric Egypt,[1] and so are

Fig. 18. 1-3, 6, 8. From Egypt; *Preh. Eg.*, 11, 14; 13, 39.40; 14, 4; 15, 51. 5, 7, 10. From Susa I; *Délég.*, XIII, pls. 11, 4; 21, 2; 8, 1. 4, 9. From Sialk II; *Sialk*, pls. 9, 4; 45, S. 1552.

motifs based on the circle other than those which outline the circular bottom of a vase. Designs composed of three or four circles covering the whole inside of a bowl, or arranged in a row around its middle such as are frequent in Susa I,[2] will be searched for in vain on the white cross-lined pottery. On the other hand, pictures of men, women, and animals are more common in Egypt

[1] It is unknown also to Sumer, Akkad, Babylon and Assyria; see *Iran in the A.E.*, p. 21.
[2] *Délég.*, XIII, pls. 11, 1-4; 13, 5.7; 7, 1, etc.

than in Iran and Mesopotamia, and are less strictly stylized. And here, it seems, we have found a point that displays clearly a fundamental difference between the ceramic art of Egypt and that of Mesopotamia and Iran. The strictly geometric style does not really appeal to the Egyptian artist. He found himself freer when painting men and animals. These were taken from his own familiar surroundings; in many cases no Asiatic prototypes of them existed, and though they also show the influence of the abstract geometrical style they never dissolve into mere abstract pattern as do the animals and men drawn by his Iranian fellow-artist (fig. 19, 1-3). The characteristic joy of the Egyptians in the world in which they live manifests itself for the first time in these humble products of the potter's art. It is the same disposition which later on makes the Egyptians paint the walls of their tombs with everything they loved during their life; nothing similar was ever produced in Iran or in the land of the Two Rivers. Even in the strictly geometrical patterns we can find the same tendency. It is not clumsiness only that makes the products of Naḳāda I appear so much inferior in execution to those of Susa I, Persepolis and Al-'Ubaid; there are quite a few examples where the painter intentionally destroyed the regularity of his patterns. Thus on the beautifully symmetric design of the bowl type C 8 (fig. 20, 1), he adds two water-lines to only one of the four corners, or inserts three superposed triangles in only one of the spaces left free on another vase (fig. 20, 2). Many more similar examples could be quoted from the Egyptian material.

Fig. 19. 1. Stylized goat near river, Susa I; *Motifs et Symboles*, in *Syria* 16, p. 384, fig. 13. 2. Stylized human figure, Persepolis; *ibid.*, p. 391, fig. 27. 3. Comb animal, Susa I; *Délég.*, XIII, pl. 2, 4.

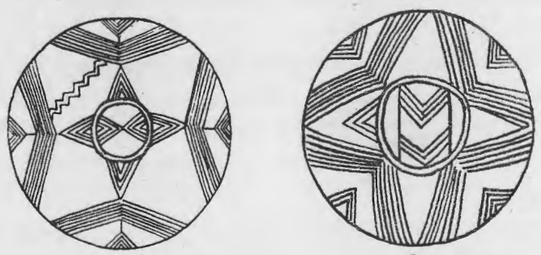


Fig. 20. 1, 2. From Egypt; *Corpus*, pl. 20, C 8, C 10 H.

What can we deduce from the fact that the earliest known Egyptian vase-painting makes use of a number of the characteristic patterns and shapes which were current in the most ancient periods of Iran and Mesopotamia? Surely, in the first instance, that there must have been some connection between Egypt and the centres of civilization on the Asiatic side. The patterns involved are too numerous and complicated to make an independent origin likely. This, it must be admitted, runs contrary to all that has been assumed hitherto. The white cross-lined pottery has been credited with a "Libyan" origin, and a North African home for the "Libyans" has been taken for granted. It was suggested on p. 49 above that the facts, as at present known, point to the contrary, and that the connection of the white-painted pottery with Asia offers further evidence that the protodynastic Egyptians, together with their Libyan relations, invaded the country from the South, and were foreigners to *North* Africa.

But we can learn more than this from our material. We can at least form a vague idea where the cultural centre may have been which so deeply influenced Egypt during Naḳāda I. I do not think that it was Mesopotamia itself; the selection of patterns made by the Egyptian potter

seems to exclude that. Men and animals are rare among the Mesopotamian motifs, and we have seen that though the Egyptian potter takes a somewhat individualistic line he is nevertheless dependent on his Iranian prototype. It is not by mere chance that most of the examples chosen for this study have been taken from Sialk, Tepe Giyān, and Susa, and not from Mesopotamia. The occurrence of the chalice points in the same direction. It seems much more likely that Mesopotamia and Egypt drew from the same original source of civilization, older than both of them, than that the influence should have gone direct from the land of the Two Rivers to the land of the Nile. The culture of the Al-'Ubaid period reached Mesopotamia from the Iranian highlands.[1] It extended as far east as Baluchistan and probably even to the Indus valley, though the painted pottery civilizations there are now dated as late as Sargon of Akkad or even later.[2] It reached the coast of the Persian Gulf at Bender Bushire [3] and at a point not far from Old Hormuz.[4] Where the centre of this culture was we do not yet know, but it is certain that its influence was both deep and widespread. It seems possible that this culture reached Egypt *via* the Straits of Aden and followed the upper course of the Nile; but this is pure conjecture, for nothing is known about the prehistory of the countries that might have formed the bridge between Asia and Africa. Nor does it seem worth while to say much more about the symbolism contained in the patterns. We know all had one, but mostly we are utterly ignorant of its nature. It is certain, however, that their meaning was not forgotten in Egypt with the disappearance of the white-painted pottery, and that some of the symbols—the vertical zigzag for water is one—continue into the historic epoch.

More space has been taken up with general considerations based on the evidence of pottery shapes and patterns than may seem justified. But it should not be forgotten that pottery was the main item of household furniture in these early times, and that we have not much besides—and nothing in such quantities—on which to base our conceptions of the life and culture of prehistoric peoples. It may also seem dangerous to assume a cultural connection between countries so far apart as Egypt and Iran. Fortunately we have a fact which helps to confirm this assumption. The Naḳāda I people have left us a picture of one of their sea-going boats, painted on a jar (fig. 21). Though it is not complete, what is left of it is enough to show that it is of the type of Red Sea craft to which Frankfort first drew attention.[5] Brunton, who found this sherd, at once saw its importance; he says:[6] "The great interest of our sherd, then, is that it gives definite evidence of a connection with the East in Amratian [=Naḳāda I] times."

Fig. 21. From Egypt; *Mostag.*, pl. 38, 4.

IV. The Later Painted Pottery

A glance at the relevant plates in, for example, the *Corpus*, will show that the red-painted Egyptian ware of the Naḳāda II period, though not a development of the earlier painted pottery

[1] H. Frankfort, *Archeology and the Sumerian Problem*, p. 23.
[2] *Op. cit.*, p. 25.
[3] M. Pézard, *Mission à Bender-Bouchir=Publications de la Mission archéologique de Perse*, XV.
[4] Sir A. Stein, *Archaeological Reconnaissances in North-Western India and South-Eastern Iran*, pp. 139 ff.
[5] *Studies in Early Pottery*, I, pp. 138-42.
[6] *Mostag.*, p. 84.

of Naḳāda I, has some features in common with it. Quite a few of the motifs are familiar to both wares, such as the rows of triangles symbolizing hilly country or chains of mountains and the vertical water-lines. There are, however, other motifs which, although known from the earlier period in Iran and Iraq, are introduced into Egypt with the decorated ware only. The much discussed rows of long-necked birds (fig. 22, 1.2 and pl. 9, 4) and the row of goats (fig. 22, 3.4) on the early pottery of Susa I and Musyān [1] put in an appearance in Egypt with the decorated pottery. Even more interesting is a geometrical sign that is first known in Egypt during the later period, though familiar long before in Iran and Iraq, namely the "Z-sign," [2] (fig. 23, 1-4) and, its near relation, the "epsilon-sign" (fig. 23, 5.6). While the latter does not appear singly, but in files of varying length, similar to other decorative elements, the former has assumed a special importance. It is used not only in rows but by itself, and is one of the "standards" carried by the boats of the decorated pottery (fig. 23, 1.2). Here the "Z-sign" is clearly a sacred object or the symbol of a god, but even in this comparatively clear case we are unable to explain its meaning. It has been shown on p. 12 why it cannot be a harpoon, and a nome-sign of the Nile Delta, as Newberry held.[3] It is probably safe to affirm that the sign is of Asiatic origin.

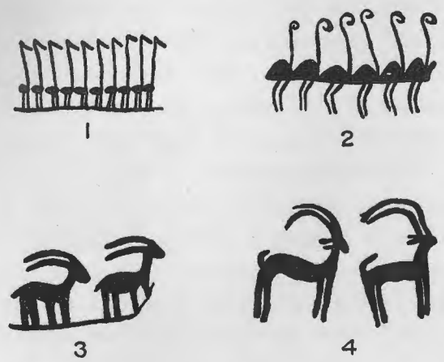


Fig. 22. 1. From Susa I; *Délég.*, XIII, pl. 9, 9. 2, 4. From Egypt; Naḳāda II; *Preh. Eg.*, pls. 20, 44D; 22, 78F. 3. From Musyān; *Délég.*, VIII, p. 119, fig. 209.

The fact that the decorated pottery uses motifs of the early painted vase culture unknown to the Naḳāda I painted ware shows that it goes back to an area different from the one from which the makers of the white cross-lined pots drew their inspiration, for the foreign symbols must have been taken from a culture which had made a different selection from the original mass of available patterns. Thus, though the argument leads to the assumption of an Asiatic source for both the Naḳāda

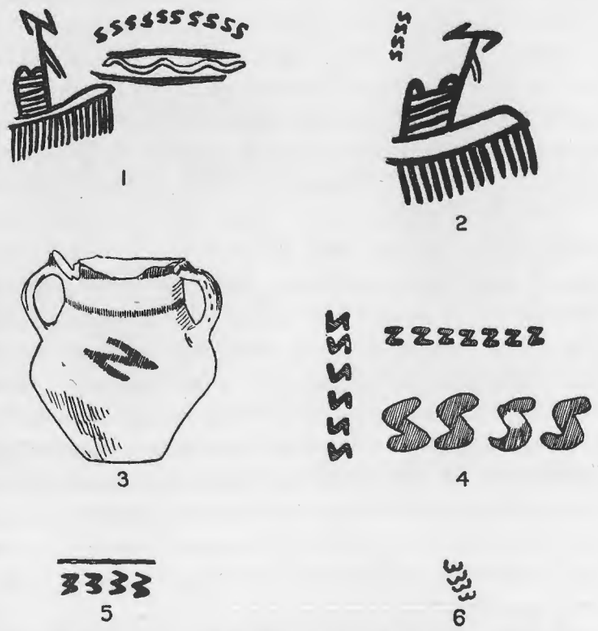


Fig. 23. 1, 2, 6. From Egypt; *Preh. Eg.*, pl. 20, 43G.44D; *Corpus*, pl. 33, 36d. 3-5. From Asia; *Iran in the A.E.*, p. 33, figs. 44, 45; p. 34, fig. 46.

[1] Frankfort, *op. cit.*, p. 69, figs. 8, 9.

[2] Called by Herzfeld the "Zeta-sign." He says, *Iran in the A.E.*, p. 33: "This is a symbol common to Persepolis and derived wares, as well as to Samarra."

[3] *Notes on some Egyptian Nome Ensigns and their Historical Significance*, in *Anc. Eg.*, 1914, pp. 5 ff.

civilizations, we must consider their original homes in Asia to have been different. The study of pottery shapes tends to confirm this view.

Two questions emerge: first, which are the characteristic motifs of the second painted vase period unknown to the earlier epoch? and second, in what way does the new style differ from that discussed above?

1. The most characteristic geometrical pattern of the Naḳāda II painted pottery is that which divides the vase into vertical stripes, alternately empty and filled with cross-hatching or wavy lines. These stripes may begin at the rim of the pot and run through straight down to its bottom,

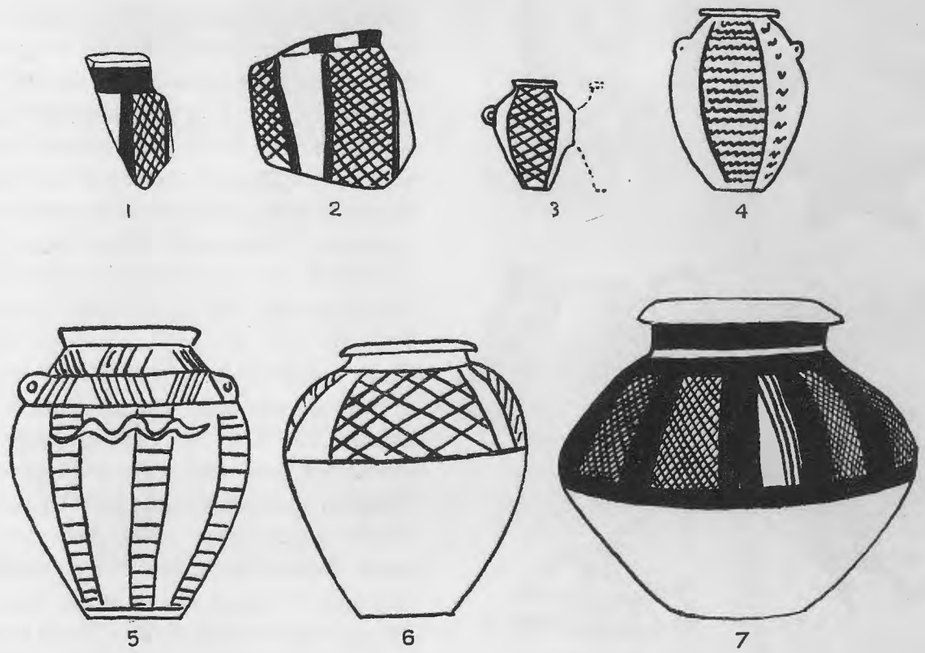


Fig. 24. 1. From Uruk; *Warka* IV, pl. 20, C, *f*. 2-6. From Egypt; *Corpus*, pls. 32, 28 Y; 31, 14 G.10 J.2 K; 32, 28 M. 7. From Jemdet Naṣr; *Jemdet Nasr*, pl. 77, 1.

or they may start from a sort of collar surrounding the shoulder of the vase, or they may be cut short at a line drawn round the shoulder of the pot, thus forming a sort of "metope" pattern (fig. 24, 2-6). But it is not only in Egypt that patterns built up with vertical stripes are a sign of the second painted pottery period; the same is true for Iran and Iraq. The motif on the little sherd from Uruk (fig. 24, 1) and that from Naḳāda (fig. 24, 2) resemble one another closely enough to make a common source likely, and the same may be said of the shape and pattern of the vase from El-Maḥāsna (fig. 24, 6) and that from Jemdet Naṣr (fig. 24, 7). This still strictly geometrical design is the earliest we know from the Egyptian decorated pottery. The second style everywhere tends to a greater naturalism, and introduces more motifs taken from animal or plant life. But before going into that, there are still a few geometrical patterns to be mentioned which belong to the second period only.

The pentagram (fig. 25, 1-4) is one of these. It occurs as an incised pot-mark on a wavy-handled jar (fig. 25, 1) from Naḳāda (or Ballāṣ?) tomb 598 and in red paint on a decorated vase from Diospolis Parva (fig. 25, 2-2B). An example from Jemdet Naṣr is published by Mackay (fig. 25, 3). The pentagram, with its triangles filled in with colour, the centre only left blank, is found at Jemdet Naṣr (fig. 25, 4), and also on the vase with the pentagram mentioned above (fig. 25, 2A). This unusual vase has as a third motif the so-called double axe, two triangles joined at their apexes (fig. 25, 2B). Apart from this example, this motif, common in the Middle East, seems to occur in Egypt as a pot-mark only.[1]

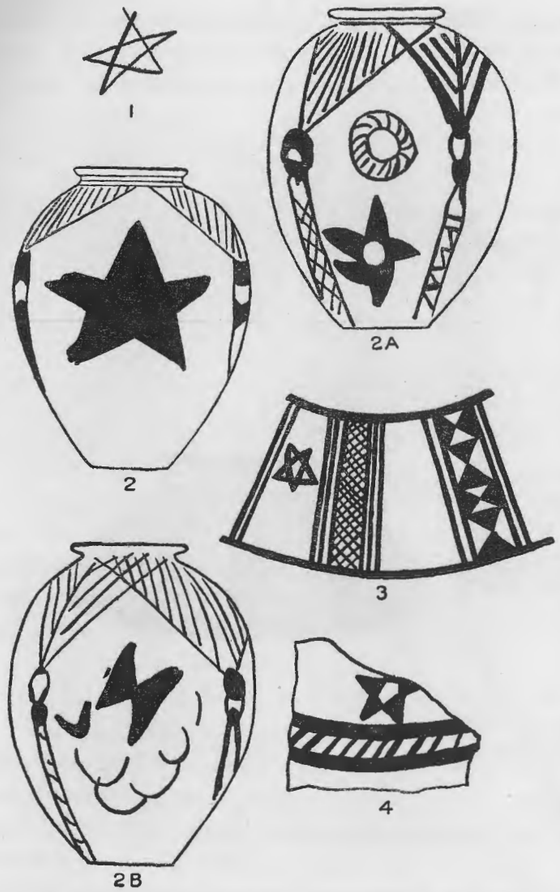


Fig. 25. 1. From Naḳāda; *Naq. Bal.*, pl. 54, 221. 2 to 2B. From Diospolis; *Diosp. Pa.*, pl. 15, 24b. 3, 4. From Jemdet Naṣr; *Jemdet Nasr*, pl. 68, 11.8.

The geometrical patterns so far investigated all have their counterparts in Iran and Iraq. There is one motif, however, which, I think, is almost unknown in these countries at this early time, namely the spiral. It is, however, typical of the decorated ware of Egypt and is a great favourite with the Egyptian potter. Sometimes one large specimen fills one side of a vase entirely (fig. 26, 2), sometimes a number of them of differing sizes are strewn all over the surface (fig. 26, 1). They are always narrowly coiled and never joined to each other. The only parallel I know from Iran comes from Sialk III. The closely coiled spirals occur there not infrequently, several of them joined together forming a sort of tree (fig. 26, 3). On three sherds only are they drawn by themselves, neatly arranged in rows. But on only one of these sherds are the spirals closely coiled (fig. 26, 4.5). In two exceptional cases the spiral appears as early as the white cross-lined pottery in Egypt.[2]

However, the distinguishing feature of the second painted pottery is the use of patterns taken from nature, rather than geometrical ones. We have to distinguish between designs taken from plant, animal, and human life. The tree "drawn in a pseudo-naturalistic way" as Herzfeld[3]

[1] *Naq. Bal.*, pl. 53, 140-145. On the possible meaning of this sign see Sidney Smith in Marshall, *Mohenjo-Daro and the Indus Civilisation*, p. 419.

[2] Both from the centre-piece of the vase, cf. *Corpus*, pl. 22, C 46 D, and J. de Morgan, *Origines de l'Égypte*, pl. 3, 4a.

[3] *Iran in the A.E.*, p. 88.

puts it, is everywhere a motif which betrays the later period. This is a very good description of the so-called aloe, which is the main design taken from vegetation in Egypt. The prototype is certainly indigenous, a motif taken from the potter's own surroundings, yet Herzfeld finds a "striking" resemblance between these aloes and certain trees, probably Phoenix palms, on an early Sumerian stone vase.[1] The fan-shaped tree, however, which is inscribed in the segment of an ellipse belongs to both the Egyptian and the Iranian potters. Examples from the Nile valley are common (fig. 27, 1.2).[2] With these should be compared the design on two sherds from Khazīna, published by J. E. Gautier and G. Lampre in *Fouilles de Moussian* (my fig. 27, 3).

The next motif comes from pottery found by Petrie in the ruins of a settlement inside the Temenos at Abydos, where there were several sherds of decorated ware which Petrie says are of late design. In about the highest level in which these pots occurred he excavated a vase of striking shape and design (fig. 27, 5.5a). In his description of the vessel Petrie says: "It was found at level 23, and is therefore about the time of king Ka. The animal to the left seems by the horns to be intended for the kudu, now known in Abyssinia; the design of birds on a tree is not known on any other Egyptian pottery."[3] The design of birds on a tree is rare in the Asiatic circle also during the period with which we are concerned here. I can adduce only one example, from a fragment found at Susa II (fig. 27, 4). But the tree with the birds is not the only unusual trait of this vase: the two animals facing each other and joined by a common base-line (fig. 27, 5A) are unknown from other examples of the decorated ware. They are drawn with much more freedom than the pseudo-naturalistic style of this early epoch would allow. The shape of the vessel also does not seem to belong to the Naḳāda II epoch, though this cannot be said with certainty—we are far from knowing all the possible shapes of the time. The motif of the birds on a tree is familiar in Iran, but at a much later time. The little picture from a vase from Tepe Giyān (fig. 27, 6) is dated by Herzfeld[4] at about 1400 B.C. It is certainly nearer in style to the Egyptian drawing than the earlier one from Susa II. The picture from Tepe Giyān belongs to a series of similar designs from Mesopotamia and Assyria published by Herzfeld;[5] it must have been a common motif about the middle of the second millennium. The Naḳāda II

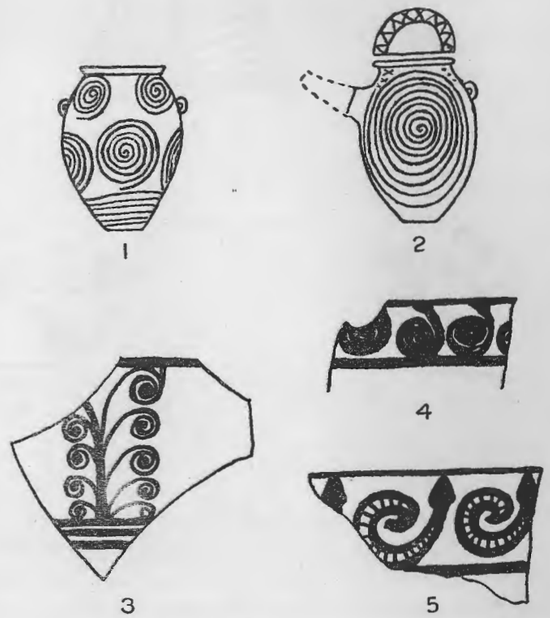


Fig. 26. 1, 2. From Badāri; *Bad. Civ.*, pl. 39, 31t.32z. 3-5. From Sialk III; *Sialk*, pl. 79, C 4 and D 1.2.

[1] *Op. cit.*, p. 90, pl. 24. The Egyptian tree cannot be a date-palm, for its flowers sprout from the middle of the tree above the leaves, and not below them as in the palm tree.

[2] Cf. *Corpus*, pl. 33, 36K.36P.40N.41M, and many more.

[3] *Abydos*, I, p. 23.

[4] *Iran in the A.E.*, p. 91.

[5] *Op. cit.*, p. 92, fig. 181.

decorated pottery was fast dying out about the time of king Ka, the decoration having degenerated to mere dots and lines. An imitation of the net in which the pot used to be carried is about the best this period could produce in painted pottery. The style of this vase certainly agrees better with painted pottery vases from the New Kingdom than with any from the beginning of the dynasties. The vessel is probably an intrusion into the layer in which it was found.

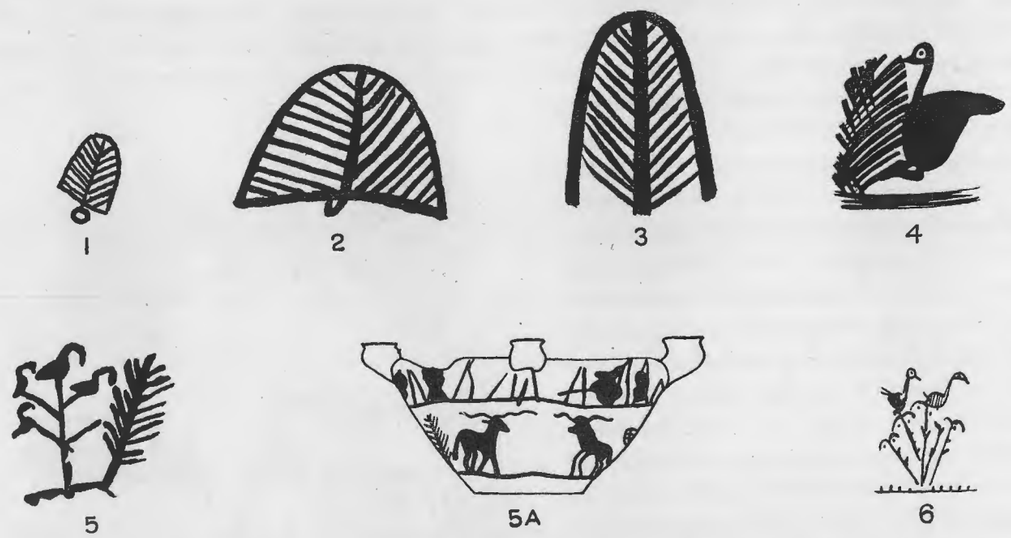


Fig. 27. 1, 2. From Egypt; *Preh. Eg.*, pl. 20, 44 D and 43 G, details. 3. From Khazīna; *Délég.*, VIII, p. 114, fig. 191. 4. From Susa II; *Mém. Miss. arch. Perse*, XXV, p. 213, fig. 57. 5. Detail from vase 5A, Egypt; *Abydos*, I, pl. 50, 23. 6. From Tepe Giyān; *Iran in the A.E.*, p. 91, fig. 180.

Mention has already been made of the rows of long-necked birds and of goats which, though new to Egypt of the Naḳāda II period, had been employed at an earlier time in Asia. The second style there makes these rows form part of the stripe pattern, or places single animals in the metopes which are characteristic of the later epoch (fig. 28, 4). This arrangement is quite in keeping with the general tendency of art in the Asiatic circle. The geometrical element remains strong there, even during the later period, and also a feeling that the ornament should conform to the structure of the vase. The motifs taken from nature are made to agree with this general scheme. We can observe a similar tendency in the designs of some pots of the decorated ware. There are a few vases which have the widest part accentuated by a heavy patterned band, while the lower part, which slopes to a narrow bottom, remains undecorated (fig. 28, 2.3). A vase from Naḳāda (fig. 28, 3) shows in shape and decoration the same artistic feeling as the much more sophisticated prototype from Jemdet Naṣr (fig. 28, 1), whilst on no. 2 of the same figure, also from Naḳāda, the pattern is moved up towards the neck of the pot, thus disturbing the balance of the whole scheme. One Egyptian potter even tried to introduce the motif of the animal inside a metope (fig. 28, 5), but his venture cannot really be called a success. It was not a good idea to shift the design to the narrow lower part of the pot, and the bird inside the metope does not look too happy. If we compare any example from the Asiatic circle, the goats on a pot from Sialk III, for instance (fig. 28, 4), the difference in quality of execution is obvious—the Egyptian piece is

much inferior. On another Egyptian vase from the same site as that mentioned above (cemetery E at Abydos; see fig. 28, 6), the potter has left his metopes empty. He arranges the goats he wants to represent in a row underneath them, but instead of enclosing them between lines in a stripe,

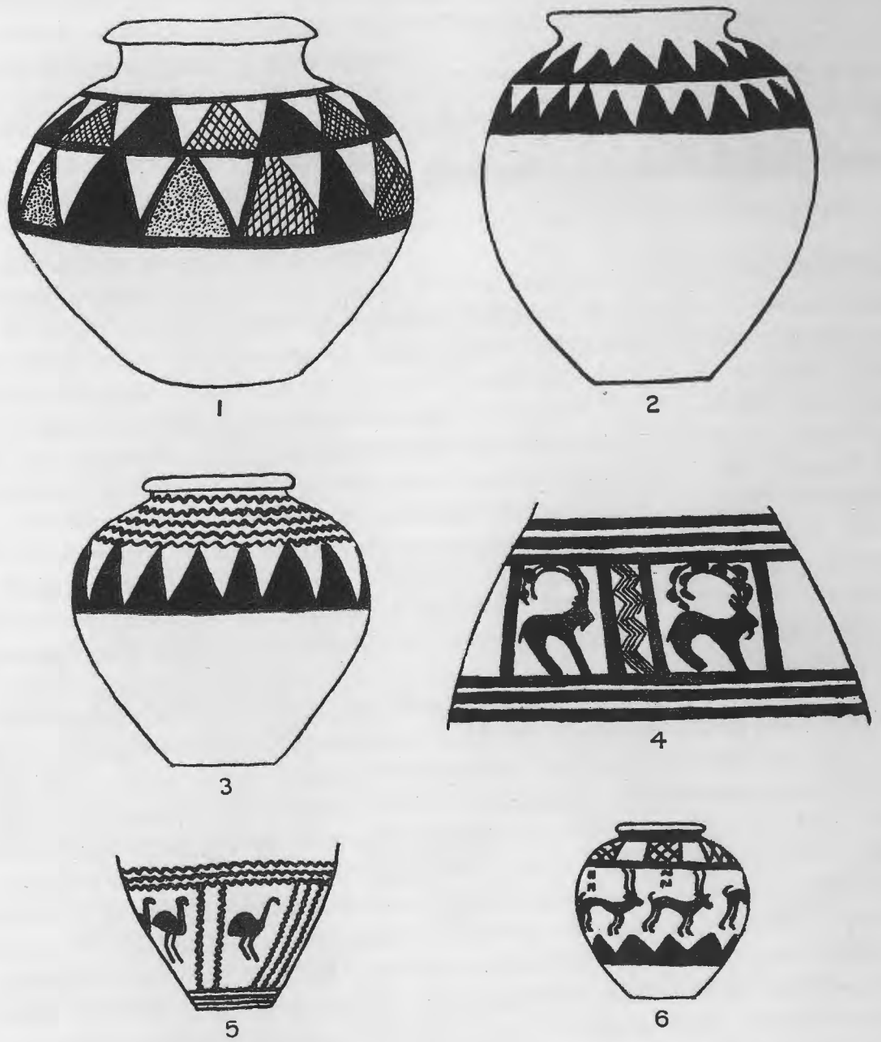


Fig. 28. 1. From Jemdet Naṣr; *Jemdet Nasr*, pl. 78, 1. 2, 3. From Naḳāda; *Naq. Bal.*, pl. 34, 60. 59b. 4. From Sialk III; *Sialk*, pl. 74, S. 1748. 5, 6. From Abydos, cemetery E; Naville, *Cemeteries of Abydos*, I, pl. 5, E 231. E 340.

he puts a chain of triangles underneath, setting them in a landscape. He even adds a little goat-herd with his stick, thus interrupting the uniformity of the row (fig. 29). To a potter from Iraq or Iran this would have been a serious lapse from good composition.

Again we are confronted with a fact similar to the one we noticed when studying the white

cross-lined pottery. The Egyptians did not really feel at home with the strictly geometrical style, nor with the structural composition of vase painting. It is interesting and important to realize that far-reaching and even revolutionary as was the influence of the Naḳāda II civilization upon Egypt, it did not extirpate the culture which had been there before. Reasons were given in Part I for the assumption that the Naḳāda II people reached Egypt from an unknown centre somewhere in Asia, probably through the Wādi el-Ḥammāmāt, whilst those already in possession in the Nile valley at the time of this invasion had come to Egypt from the South. It has also been argued in the preceding pages that the white cross-lined pottery is an offspring of the first painted pottery of Iran. It is impossible to say, ignorant as we are of the prehistory of the countries concerned, whether the people of Naḳāda I were also invaders of Asiatic origin, or whether they were Africans who had undergone a strong Asiatic influence coming via the Straits of Aden. However this may have been, they must have picked up a strong element somewhere which does not occur on the Asiatic side. It lends to the products of Egyptian culture a character of their own which from its earliest manifestations divides them sharply from everything that was produced in Iran and Iraq. We are accustomed to call this unknown element in the make-up of the Egyptians the Hamitic strain, but we should not forget that that is only a name for a quality of which the origin is obscure and the implications unexplored. We can state with some degree of certainty that the people of Naḳāda I spoke a Hamitic language whilst those of Naḳāda II used a Semitic one,[1] but if we use the term "Hamitic" with any meaning other than the linguistic it tells us precisely nothing. It is just a convenient word which can be used if the meaning given to it is properly defined.

Fig. 29. Detail from fig. 25, 6 (E 340).

So far in the second part of this book no mention has been made of the inhabitants of Egypt and their civilization prior to Naḳāda I—nor of any relations they may have had with Asia. The first settlers on the foothills of the Nile Valley entered Egypt from the South. The grain they cultivated and their domesticated animals were of Asiatic origin. There are a few more things that might point to an Asiatic source. If a thorough study of the origin and distribution of the pottery with a red engobe could be made, perhaps we should see a little more clearly. This seems to be the earliest pottery of Egypt, and there is some reason to believe that it preceded the painted pottery in Iran.[2] Leaving these difficult questions on one side, then, let us return to the relative contributions of Naḳāda I and II in the making of Egyptian historical civilization.

2. It is perhaps not remarkable that the earlier civilization of Egypt persisted against very strong new influences. It is a phenomenon which confronts us throughout Egyptian history. After all, the Naḳāda II people were invaders, and the earlier population must have been in the country for a good long time. It is reasonable to assume that new waves of the Naḳāda I people kept wandering into Egypt from the South,[3] for people of the same race did so during historical times. These newcomers strengthened the original element. Very likely the people of Naḳāda II

[1] Zyhlarz, *Ursprung und Sprachcharakter des Altägyptischen*, in *Zeitschr. f. Eingeborenen Sprachen* 23 (1932-3), pp. 86 ff.
[2] E. Schmidt, *Persepolis*, in *American Journ. of Semitic Languages and Literatures* 55, p. 108.
[3] See below, pp. 100 ff.

did not all come at once, yet they were restricted to one single period. Their wanderings must have had some connection with the greater movement of peoples which in Asia created the Jemdet Naṣr period in Mesopotamia. That the Naḳāda II people had been influenced by an incised pottery culture corresponding to that of the so-called Uruk period in Mesopotamia will be shown below, when the shapes of their pottery and plain ware are discussed.

But we have not yet finished with the red-painted Egyptian pottery. The picture of the little

Fig. 30. From Tepe Giyān ; *Iran in the A.E.*, p. 78, fig. 148. 2. From Mustagidda ; *Mostag.*, pl. 35, 14. 3, 4. From Badāri ; *Bad. Civ.*, pl. 40, 59q. 54b.

goatherd and his herd (fig. 29) is certainly one of the most attractive that the second Naḳāda period has produced; the geometrical and the free styles have combined well in its making. But the Egyptian potter soon forgot all the stricter rules, and the motifs are found dispersed all over the vase without any apparent system or order. Even such a stiff pattern as the row of triangles is split into several parts, and strewn in different directions over the surface of the pot (fig. 30, 4). Nor is the structure of the vase considered any longer in the display of the decoration. This is most striking in the cases where the pots are provided with three triangular lugs. One would

think that this would necessitate a division into three, especially with a geometrical pattern. A composition based on such a scheme is a characteristic feature of the later period in the Asiatic zone.[1] In some cases the Egyptian potter has indeed adapted his pattern to the threefold partition which the three lugs demand, but in most instances he has taken the lugs one by one into his decoration, as if they were completely independent of each other, and part of a continuous row. Geometrical patterns have been chosen here to make this point clear. The Iranian vase from Tepe Giyān (fig. 30, 1) is decorated with the "bird" pattern. The birds are drawn geometrically enough to serve the purpose, and form a fine piece of tripartite composition. The Egyptian counterpart is from Mustagidda (fig. 30, 2); here the linear pattern three times displayed is fitted into the three spaces provided by the three lug-handles of the vase, thus creating a harmonious whole. The painter of the next example (fig. 30, 3), found at Badāri, has chosen another solution of the problem presented to him by the presence of the three lugs: he has enclosed one of them in a large necklace, but has put another necklace between the two remaining lugs. What was left of his space he has filled with rows of triangles of unequal length drawn without any relation to the lugs, which tend to disappear among the decoration. The painter has indeed succeeded in obliterating any trace of a geometrical division of the vase.

Fig. 31. 1. From Hammāmīya; *Bad. Civ.*, 70, 6. 2. From Tjekhme 'Ali, near Teheran; *Mém. Miss. arch. Perse*, XX, p. 118, fig. 24.

The dissolution of any geometrical order is even more apparent when the subjects of the design are animals and men. By way of illustration a few pieces will be considered in which the design is still fairly complete. A small sherd from Hammāmīya (fig. 31, 1) gives the impression of being composed in the traditional row. Unfortunately the fragment is so small that very little can be deduced from it, yet the position of the arms of the figures, which hold each other by the hands, is strongly reminiscent of the attitude of a row of women drawn on a sherd found at Tjekhme 'Ali (fig. 31, 2). It is very tempting to see the same scheme of composition on both fragments.

The vase with the dancing "demons" is another example of a row of persons, but in a much disintegrated state (pl. 10, 3-5). It was first published in *Naq. Bal.*, pl. 35, 77, and later in the *Corpus*, pl. 37, 77. At the time it was drawn for the first publication it seems to have been complete, and the Register of the Ashmolean Museum, where it is now kept, mentions six sherds of it, but all I can trace are the four shown on the plate. From the drawing and the photograph part of the original picture can be reconstructed. A number of men are disposed in procession around the vase, their heads pointing towards its bottom. Two of these are preserved: one is the head of a bird fixed to a long, curved neck, the other that of a feline, or perhaps a monkey. Since I cannot recognize with certainty any of the animal-headed gods of Egypt in these figures, I call them demons for want of a better expression.[2] The heads are drawn with care, and are certainly not those of men, as the photographs show clearly. These "demons" raise their arms in the attitude of the men on the earlier vase in Brussels (fig. 14). Their trunks are rendered by inverted isosceles triangles. One of these creatures stands in or above what might be a boat, and perhaps the others

[1] *Iran in the A.E.*, pp. 78 ff.

[2] It has been suggested to me that these are men wearing masks; this can neither be proved nor disproved.

are meant to stand in similar constructions. It is hard to say whether the strokes that surround the neck of the vase like a collar have any connection with the "boats," as it would seem from pl. 10, 5, or whether they touch them by accident only, or what the curious oval fixed to the prow of one of the "boats" means. This remarkable pot was found in tomb 60 at Naḳāda, together with a cylindrical stone vase of red brown limestone, *Corpus*, type 182. No sequence date is given.

But we will turn now to less unusual paintings. The little vase from Naḳāda, tomb 173, S.D. 52 (pl. 9, 3-4), is decorated with two of the large boats so characteristic of this type of pottery. The space above and below them is filled with long-necked birds, the "epsilon-sign," a goat, and men. One of these last carries an oar in his hand; the objects which the others hold are impossible to identify. Though all the motifs used by the painter (with the exception of the "epsilon-signs"?) are evidently taken from nature, the drawing does not convey to us the impression that he wanted to portray real life, or that he has studied living things. It is not surprising that when these drawings were first discovered a controversy arose as to what the ships really were. Loret and Naville took them to be settlements. It was his idea of a ship that the artist painted, and not a real object. This is, of course, true also of the paintings belonging to the Asiatic circle, and perhaps of all primitive art.[1] It may be one of the reasons why the artists of this period refrain from painting faces, and are content with blots the outlines of which resemble those of heads. If we look at the row of long-necked birds on the decorated vase just described we shall find that the last of them (pl. 9, 3) has four legs and two heads, a fact that evidently did not disturb its Egyptian creator. Nor did he care to give any indication of the relations in which the various men, animals and objects depicted may have stood to one another. The row of birds is one motif, but have they anything to do with the goat with the corkscrew legs immediately behind them, though on a somewhat higher plane? We do not know.

In the case of the dancing women (pl. 11, 1) it is evidently the elaborately dressed hair and the attitude of the arms that the painter wanted to show. They are on a pot (now in the Ashmolean Museum) found together with two black-topped vases in Naḳāda tomb 454, S.D. 47. The hair of the women is no longer seen flying as in the earlier examples, but is rather in the shape of the wigs which the great ladies of the Old Kingdom used to wear.[2] The attitude of the arms is different from that of the men or demons already discussed (fig. 14 and pl. 10, 3–5): they are raised, but the hands are curved back, touching the tops of the heads. This certainly has a definite meaning; perhaps a special dance is being performed of which this headgear and also the attitudes of arms and hands are characteristic. Mr. Anthony Arkell kindly informs me that the women in the Sudan have a dance, the cow dance, in which their hands are held in the same gesture as that of the prehistoric Egyptian dancers. This would be a modern parallel, though what the ladies on the vase are performing need not be the same dance, or even a predecessor of it. On the other hand, this cannot be totally excluded in view of the cow-goddess of Naḳāda I.

The tree between the dancing women is the aloe, which we find frequently depicted on the decorated ware. It differs slightly from the usual design in that it has two short branches coming out of a lily-shaped bud, instead of a single long one protruding from the stem. This is probably a sacred tree, as shown by the little chapels (?) frequently connected with it, but its connection (if any) with the dancers is obscure.

[1] This does not exclude a more naturalistically drawn animal occasionally.

[2] Cf. the wig worn by Nofret, wife of Ra'ḥotep of Mēdūm, e.g. H. Fechheimer, *Die Plastik der Aegypter*, pp. 18, 19.

The boats (pl. 11, 1–3), one on each side of the tree, also differ from the usual type, for they carry much more solid structures than those generally represented on such ships. The two cabins are joined by a bar with two loops on it, similar to those between the structures on some of the boats of the Hierakonpolis tomb.[1] The cabins themselves are more like little huts than cabins of the usual type. The loops are smaller than usual; in one of the structures (pl. 11, 2, extreme left) they seem to be inside. They have in front of them small railings which remind one of the fence of the sacred enclosure belonging to the archaic sanctuary of Neïth.[2] The standards belonging to these remarkable edifices are elephants on both boats. The animals behind or on top of these boats are also far from ordinary. The birds are less stylized than usual, their bodies being marked with parallel strokes;[3] but more remarkable still are the other creatures which fill the upper part of the picture. In two cases an animal is shown which does not seem to have a head (pl. 11, 1–2); if it were not for its two legs, which in one case look like a vase-stand, one might take it for a bug. One more figure is difficult to explain (pl. 11, 3); it might be the skin of an animal with four outstretched legs, head and tail, but it might equally well be a live animal in an unusual aspect. Around the mouth of this vase and over all the various drawings just described the artist has put a row of joined[4] triangles.

This vase is discussed by Scharff in his article *Some Prehistoric Vases in the British Museum*.[5] He too draws attention to the unusual drawings found on it, and tries to explain them by the hypothesis that "a vase painter who was accustomed to work in the old technique of the white-on-red pots, has here made a first attempt in the technique of the red-on-buff ware, and has endeavoured to render as closely as possible the long-oared ships which were strange to him." This explanation does not seem satisfactory. The vase is dated to S.D. 47, and it is difficult to assume that a painter accustomed to the white-on-red technique survived to such a date. The drawings on the pot show that it is certainly not to be dated to the beginning of the red-on-buff technique, for the ships, as already mentioned, resemble those of the painted "tomb" of Hierakonpolis, and for these a similar explanation is clearly impossible. That motifs of the earlier pottery occur on the decorated ware is explained above as being due to the fact that both potteries, though not a development one of another, are related, going back to the same source. Birds hardly ever occur on white-painted pottery; birds in outline, shaded only with a few cross-lines, and very similar to those of the Naḳāda pot, are found on a decorated vase from Diospolis.[6] Thus the vase of the dancing women is certainly not a piece to be explained as influenced by the white cross-lined pottery of Naḳāda I. It has to find its place right on the other side of the evolution. All signs of a geometrical order or of an adaptation to the shape of the vase have disappeared from the painting. The artist took the surface of the vase as a background for a series of pictures; the symmetry of the arrangement did not trouble him in the least. The same tendency is seen in the work of the artists of later times when decorating the walls of a tomb: there also the walls are not subdivided into strictly separated pictures, but one follows another in a seemingly endless stream. Wall painting in Egypt goes back to the Naḳāda II period and the famous "tomb" of

[1] Quibell and Green, *Hierakonpolis*, II, pls. 76, 77.
[2] *Royal Tombs*, II, pl. 3A.
[3] Similar birds on a pot from Diospolis, *Corpus*, pl. 35, D 55 B.
[4] Separated in the plane projection of Petrie's drawing.
[5] *JEA* 14 (1928), pp. 263 f., with fig. 2.
[6] *Diosp. Pa.*, pl. 16, 55a. Birds filled in with paint as well as birds painted in outline only and then cross-hatched occur at Musyān, *Délég.*, VIII, p. 128, figs. 240, 241.

Hierakonpolis; we have seen that our vase agrees with the paintings of Hierakonpolis in style and in some minor details also. Thus, the Egyptian art of the historic period takes over an essential element of its style from the prehistoric painted pottery of Naḳāda II. We shall see that this is not the only legacy that Naḳāda II has handed down to historic Egypt.

Again, as with the previous period, so here we have to note the fact that these motifs common to the pottery of Egypt and those of the Iranian Highlands, Elam, and Babylonia, are more than a mechanical imitation by the Egyptian potter of certain forms of decoration. The motifs are symbols and convey a definite meaning which was understood by the Egyptian artist when he copied them. Or, as Herzfeld puts it:[1] "The manner in which the symbols are used and the intellectual contents of the decorations are related." I would not, however, go quite so far as Herzfeld, who regards these symbols on the vases as "pictographs,"[2] for symbolism does not die out in the age of writing, while writing supersedes pictographs. Of many of these the meaning is lost to us now, others again have found their way into script. Both the examples Herzfeld mentions have a bearing on Egyptian writing. The first that he gives[3] is that of the water-lines with which we have already dealt; the other is the triangle, the symbol for "mountain." A group of triangles is the motif conveying the meaning of hills or hilly country on the Egyptian as well as the Iranian pottery. Three triangles, two over the third: ⋀ mean "hilly country" and "foreign country" in Sumerian and Babylonian; three triangles in line: ⌂⌂⌂ have the same meanings in early Egyptian hieroglyphs.[4]

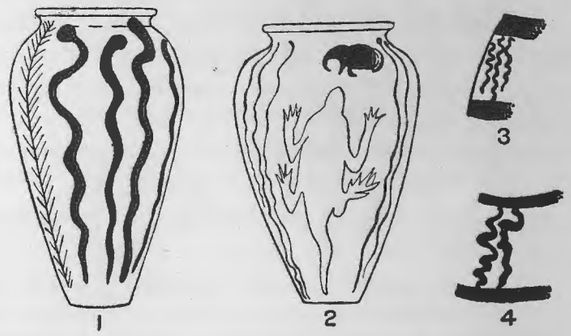


Fig. 32. 1, 2. From Egypt; *Corpus*, D 78d. 78b. 3, 4. From Susa II; *Délég.*, XIII, p. 51, fig. 181; p. 47, fig. 163.

The discussion of these symbols may fittingly end with the serpent, with which the investigation began. In discussing the earlier period with its strictly geometrical art, it was difficult to distinguish the serpent with certainty from the water-lines. But even during the later period the representation remains a stylized one. There are several good examples of snakes, however, from Jemdet Naṣr, from Susa, and other places[5] (cf. fig. 32, 3 . 4). There are some drawings more naturalistic from Egypt. The animals on the pot from Diospolis (fig. 32, 1) are certainly snakes, for their heads are clearly indicated, as well as those on the Naḳāda pot from tomb 193 (pl. 10, 1 . 2). This latter vase is of such interest in other respects also that it merits a short digression from the subject.

Two large upright serpents occupy the centre of one side, while smaller ones, most of them upright too, fill in the vacant spaces (pl. 10, 2). The rest of the pot is decorated with crocodiles; one of these, drawn larger than the rest, is shown pierced by harpoons, which are represented

[1] *Iran in the A.E.*, p. 39.
[2] *Op. cit.*, pp. 43 f.
[3] *Op. cit.*, p. 44.
[4] Prof. Gunn drew my attention to these signs, which can hardly be regarded as being independent of one another. Three triangles beside one another occur also in the Indus script, and have possibly the same meaning; cf. S. Smith and C. J. Gadd in Sir John Marshall, *Mohenjo-Daro and the Indus Civilization*, p. 409, also no. 119 of the sign-list, p. 440.
[5] *Jemdet Nasr*, pl. 68, 1; *Délég.*, XIII, figs. 163, 166, 177, etc.

with their ropes coiled, in the same way as on the sherd of the hippopotamus vase from Badāri.[1] There the warriors who are painted on one of the hind-quarters of the animal hold the same weapon in their hands. Crocodile-hunting is not represented in historic times in Egypt;[2] even when a crocodile threatened the herds crossing the river it was brought to bay not by weapons but by a magical gesture, similar to that used nowadays against the evil eye. The hunting of a crocodile is perhaps symbolized on another decorated vase which has no recorded provenience,[3] and is now in the collection of University College, London. Near the mouth of the vessel, on opposite sides, are represented in relief a crocodile and a harpoon, both painted red. The rest of the pot is decorated with motifs of no uncommon kind. The fact that the people of Naḳāda II

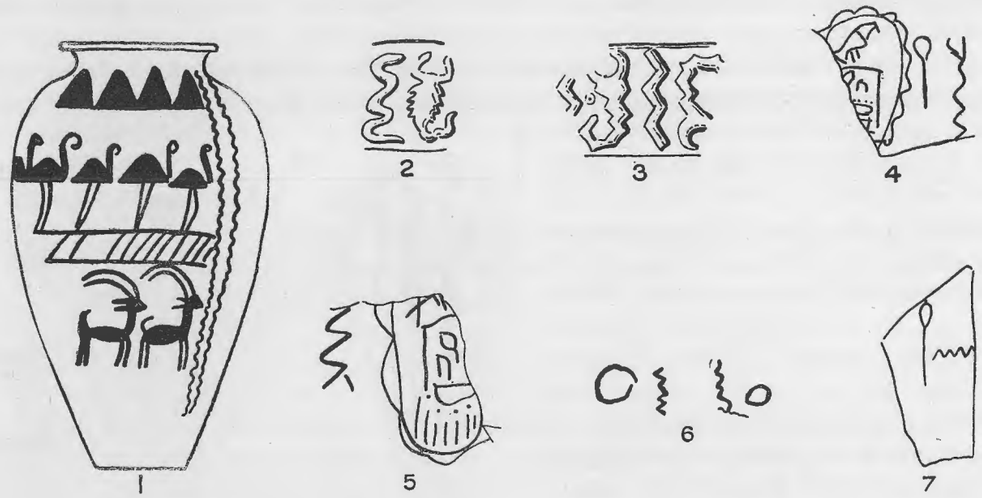


Fig. 33. 1, 4-7 from Egypt. 1. *Corpus*, pl. 37, D 78 F. 2, 3. From Susa, *Délég.*, VIII, p. 24, figs. 56, 58. 4, 5. *Royal Tombs*, I, pl. 44, 17.18. 6. *Royal Tombs*, II, pl. 55A, 92.93. 7. Emery, *Tomb of Hemaka*, p. 61, fig. 18.

were not afraid, as their historic successors were, to represent crocodile-hunting seems to indicate a change of religious attitude towards this animal.

But let us return to the snakes. In Asia as well as in Egypt they are mostly represented as standing upright on their tails. The cult of these standing snakes indeed survived in Egypt into historic ages; on the two stones in front of the *ỉtr.tj* they are always represented as standing on their tails, hence their name '*ḥ*'.[4] They belong to Koptos, and seem to have some connection with the god Mīn, though they are not represented among the animals and objects sculptured in low relief on the sides of his colossal figures.[5] On two of the Egyptian vases just mentioned (pl. 10, 2; fig. 32, 1) the snakes are clearly indicated by the heads in which the zigzag lines representing their bodies end. But if we compare the two vases next to them in the *Corpus*, D 78 B from Diospolis (fig. 32, 2) and D 78 F in the collection of University College, London (fig. 33, 1),

[1] *Bad. Civ.*, pl. 54, 15.

[2] Erman-Ranke, *Aegypten u. aeg. Leben im Altertum*, pp. 270 f.

[3] *Naq. Bal.*, pl. 67, k 12. There said to come from Abydos. It must have been bought there, for Abydos had not yet been excavated when *Naq. Bal.* was published.

[4] H. Kees, *Die Schlangensteine u. ihre Beziehungen zu d. Reichsheiligtümern*, in *ZÄS* 57, 121.

[5] Petrie, *Koptos*, pls. 6, 9.

the confusion is apt to arise again, for who can tell whether the artist wished to represent water-lines or serpents? There is the same ambiguity on the pottery of Asia. If we look at the two seal-impressions from Susa II (fig. 33, 2.3) we shall see that on the first the snake represented together with the scorpion is still quite recognizable, but that on the second (fig. 33) it is far removed from any naturalistic shape, and looks rather like the Egyptian sign *n* in an archaic inscription. The same is true of the signs occurring in the inscriptions of the pots of the royal tombs of the first Egyptian dynasties. The hieroglyph in front of the sign ⟟, *wḏ* or *ḥḏ*, in these inscriptions on pottery[1] is characterized as a snake by its head (fig. 33, 4). But when this zigzag line appears by itself, and without a head, how are we to interpret it? Is the upright sign on a First Dynasty pottery mark (fig. 33, 6) a snake, or is it the letter ∿∿, and is the horizontal zigzag line in front of the ⟟ on a sherd from the tomb of Ḥemaka (fig. 33, 7) the same sign as the vertical snake in front of the same hieroglyph on the pottery from the Royal Tombs? This leads to the question: was the ∿∿ perhaps originally a snake?[2] The problem becomes even more involved by Sethe's reading of ∿∿ as *mw*, water, in the name ⊖ of another king of the First Dynasty.[3] We ought, perhaps, to discard Sethe's hypothesis as too bold, while agreeing with him that each sign in ⊖ stands for a separate word. But "water" in archaic times was written with two water-lines and not with three, as Sethe assumes, therefore we do not know whether the word for "water" was already regarded as a plural, and to treat one zigzag line as the singular word "water" seems to me unwarranted. We have no other example in archaic times of the single zigzag line meaning "water." But we see that the "archaic" scribe was himself disturbed by the confusion which might occur through

[1] *Royal Tombs*, I, pls. 44, 45.

[2] The original significance of the hieroglyph *n*, now generally explained as a water-line, is not known. The usual Egyptian word for water is *mw*. As this begins with *m* the letter *n* cannot have been derived from it. Sethe in *Ursprung des Alphabets*, p. 153, deduces the letter *n* from a feminine word *nt*, "water," which does not occur before the Middle Kingdom. He himself dropped this assumption later on in his lectures as Professor in Berlin University. The *Wörterbuch* does not mention any connection between the word *nt* and the origin of the hieroglyph ∿∿. Besides the confusion between the symbols for the serpents and the water-lines there is a curious fact which makes me think an investigation into the equation serpent = ∿∿ worth while. We find the word *ḏt* "eternity" every now and then determined by ∿∿: ⊖ This has been taken for a misreading of the usual determinative in hieratic originals. But the usual determinative taken from the word *ḏt* "estate" does not make any sense if *ḏt* "eternity" is meant. The word means "snake" as well, and that is its meaning where it occurs first, namely in the tomb-group of king *Ḏt*, the "Serpent King." On the official monuments the king's name is written with the serpent only (in archaic times we find each word in a king's name written by a single sign; see Sethe in his *Untersuchungen*, III, p. 39), but on a small ivory label (Petrie, *Tombs of the Courtiers and Oxyrhynkhos*, pl. 2, 10) now in the possession of University College, London, the name is spelled out. It is written ⊖, i.e. *ḏt* determined by ∿∿.* (Petrie, *op. cit.*, p. 4, says of this label: "it is tempting to see a fuller form of the king's name written in alphabetic signs." He takes, however, the ∿∿ to be phonetic and not a determinative.) Are we allowed to explain this ∿∿ here also as an error due to a misreading of the hieratic original? Was the scribe of the "Cannibal Hymn" in the Pyramid Texts (§ 412, *a*) really mistaken when he determined *ḏt* with ∿∿? Is it not more likely that the determinative ∿∿ is a snake, especially if we keep in mind that water-lines and snakes were confused of old? I do not wish to go into this problem more deeply here, as it has no direct bearing on the general thesis of my paper, and therefore shall not advance any hypothesis as to which word for "snake" may have given rise to the sign, but will only mention that the letter *n* is called "snake" (*naḥās*) in Ethiopic. The snake is written with a single zigzag in the Indus script.

[3] Sethe, *Untersuchungen*, III, p. 40.

* The middle sign is *t* and not *r*. The difference is small in the oldest inscriptions; *r* is written with the mouth showing the dividing line of the two lips. Cf. *Tombs of the Courtiers*, pl. 2, 9.

the use of similar signs for different objects, for there is a marked tendency to differentiate the sign for *n* from the zigzag. On a seal from the reign of king Peribsen [1] *n* is rendered by a straight bar ending in something like a head at one end (the other is destroyed). On the sealings published in *Abydos*, III, pls. 9, 10, there is quite a selection of different shaped *n*'s, and that, surely, can only mean that *n* was not originally the same as the water-lines, and that the Egyptians were aware of the confusion that had arisen by writing both with the zigzag lines, and attempted to avoid it. However this may have been, what I have tried to show is that in Naḳāda II as in Susa II and related cultures the water-lines, a symbol for water on the painted pots, were taken into the script, and that there is a tendency in both cases to confuse it with the serpent, which even in the more naturalistic period is usually represented in a stylized way by a zigzag line. The way in which the symbolism used in vase painting and the hieroglyphic script are here shown to interact may seem strange to us. Writing and painting are so completely separated from each other in modern times that it is only through an effort that we can call to our minds that this cannot always have been so. "In China painting and writing are so closely linked together that they can almost be regarded as one and the same art," says W. Cohn in an article [2] dealing with historical China; I think that in Egypt things must have been somewhat similar. In Egypt as in China the word for "to write" means also "to paint."

The forms which were produced in the decorated ware are less varied than those of the previous period. They may be roughly divided into those which have their counterparts in stone vases and those which have not. Since some of the decorated vases try to imitate by their paintings the patterns of the more valuable stone vessels (fig. 34, 1.3) it has been assumed that the decorated pottery tried to imitate stone vases.[3] It has already been mentioned that in the Naḳāda II period the making of pottery was no longer merely a domestic industry, practised by women on the material most readily available. The decorated ware and some of the other contemporaneous wares were made of a good clay probably found at only a few localities,[4] which became the centres of manufacture. The pots produced were far better than those made of Nile mud. But though some of them undoubtedly imitated the more valuable stone vessels, which the poor man could ill afford, it is difficult to say whether the new clay pottery took its shapes from stone vases or *vice versa*. It is arguable that it worked both ways. It may be that the type which Petrie has called "squat" (fig. 34, 2) [5] arose as a form in stone; it is flat, with a wide open mouth which may have been an advantage to a craftsman working with a stone borer. The pottery vases of the same type are either undecorated, or painted to imitate stone vases (fig. 34, 1), or decorated with a geometrical pattern, but not with ships or men, and only exceptionally with animals or plants.[6] They have horizontally pierced lug-handles, as have those in stone. Some of the earliest examples show the same stripe patterns as are seen on other decorated vases of early times. Both squat stone and pottery vases appear for the first time in Egypt at the very beginning of the Naḳāda II period, but they do not die out together: the squat stone type survives into early

[1] *Royal Tombs*, II, pl. 22, 188.
[2] *The Influence of Chinese Art on the West*, in *The Spirit of China: The Changing World*, p. 16.
[3] *Cem. Arm.*, p. 50.
[4] *Loc. cit.*
[5] *Preh. Eg.*, p. 35, pls. 36, 37.
[6] I know of three examples only: one decorated with a rather debased aloe, *Corpus*, pl. 33, D 37; another with a row of birds, Randall-MacIver and Mace, *El Amrah and Abydos*, pl. 14, D 38; the third with two rows of goats, De Morgan, *Origines de l'Égypte*, I, pl. 5, 3a-3c.

dynastic times,[1] while the latest pottery one known to me is that found at Mustagidda, tomb 1620,[2] dated to S.D. 77. Petrie goes only to S.D. 63.[3] It seems safe to say that the squat pottery vases become extremely rare after the first half of Naḳāda II.

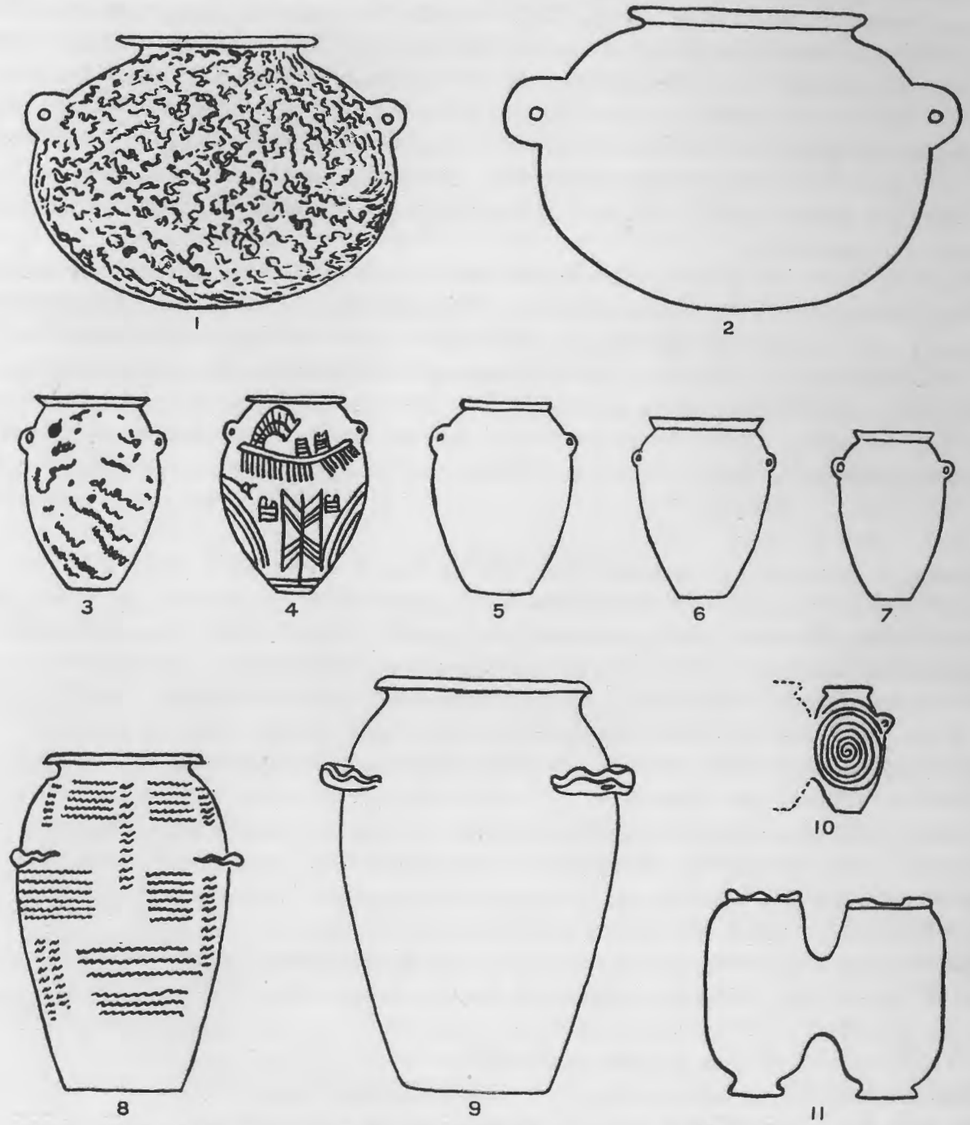


Fig. 34. All from Egypt. 1, 3, 4, 8, 10. Pottery; *Corpus*, pls. 36, D 62; 31, D 1 M; 33, D 41 S; 31, D 12 D; 33, D 33a. 2, 5-7, 9, 11. Stone: *Preh. Eg.*, pls. 37, 12; 39, 89.98.87.83; 40, 134.

The other type which we find in pottery as well as in stone is the barrel and shouldered one (fig. 34, 3-9). Petrie classifies it as two distinct types, but as the differences between these are

[1] Cf. *Royal Tombs*, II, pl. 49; Garstang, *Mahāsna and Bēt Khallāf*, pl. 27, 1.2 (Dyn. 3).
[2] *Mostag.*, pl. 35, 3.
[3] *Preh. Eg.*, p. 35.

only slight, they are here treated as one. This type is very common among the decorated ware, and is a true pottery shape. The stone vases are all provided with horizontally pierced lug-handles, and so are many of the pottery ones. Some have wavy handles, and even these are sometimes imitated in stone (fig. 34, 8.9). It is this shape that is occasionally assumed by each of the twin vases, characteristic of this time (fig. 34, 10). They are usually joined somewhere in the middle, and are very different from the multiple vases of Naḳāda I. Even this strange double vessel has been imitated in stone (fig. 34, 11), for one can hardly doubt that in this instance the shape of the stone vase is borrowed from the clay pot. So much for our first types of decorated vases which have their counterparts in stone. There is a third shape common to both stone and clay—the square vessel[1]—but as it is extremely rare in pottery it may be left until the discussion of stone vases.

The other main type of pottery has already been mentioned,[2] and its affinities with a similar type of the Asiatic circle have been demonstrated. We may now go in greater detail into the problems connected with it. Herzfeld describes the commonest type of the later painted pottery in Iran and Susa as follows:[3] "The lower part of these jars is ovoid, and to the largest diameter—the upper rim—a receding ring with a peculiar bend in the curve is joined, reducing the opening to about half its width. Formerly there had been only the wide-open deep bowl. The opening had been purposely narrowed in order to facilitate the closing of these storage vessels, whether by a lid or by clay stoppers. From such an origin the jar preserves a thick rim where the two constituent parts are joined. The greater the distance from the origin, the more indistinct becomes that rim. It has entirely disappeared when this jar reaches the shape in which it becomes the standard type of Susa II." This description would fit admirably the standard type of the decorated ware also. Egypt was certainly very far away from the source of this shape. The thick rim has completely disappeared, and so has the technique which originated it. The Egyptian pots are not made of two parts joined together, yet the general outline remains the same. This is probably due to the great advantage offered by the narrowness of the opening when the vessel had to be closed in order to protect its contents. That lids were used with these vases is proved by a few specimens which have come down to us.[4] In earlier times people seem not to have known proper lids and to have been content with some makeshift arrangement: a piece of matting, a sherd, or an inverted bowl was put over the wide mouth of the pot.[5] Whether clay stoppers were used with the decorated pots is not known, though it is likely, as they were extremely common at the end of this period. Their first appearance has not been recorded.

Between this shape with the narrow mouth, and the barrel-shaped one which exists also in stone, there are many variations, so that one cannot draw a sharp dividing line between them (fig. 35, 2). In Jemdet Naṣr also there exists a type which is slender and more bottle-like (fig. 35, 1). The real bottle is of late date in Naḳāda II (fig. 35, 3).

Besides these characteristic forms of the Naḳāda II painted pottery there are a few unusual ones. The open bowl—of Nile mud in the previous period—was now made of clay and decorated inside or outside with a simple design. Examples of this are very rare. Other vessels were

[1] *Diosp. Pa.*, pl. 16, 73.
[2] P. 53, fig. 24, 6.7.
[3] *Iran in the A.E.*, p. 77.
[4] *Corpus*, pl. 36, D 75b.75 D.
[5] *Bad. Civ.*, p. 24: "the idea of a specially made lid seems to have been quite unknown." This refers to Badārian; nothing is known about lids in Naḳāda I.

made in the form of boats and painted outside in imitation of the strings which kept the papyrus bundles together; one has even the oarsmen painted on the sides of the vessel. Some vases are shaped like birds and animals.

There is one more common trait which differentiates the decorated pots from their white cross-lined forerunners. The greater part of them are provided with lug-handles, horizontally pierced. On the stone forms they are cylindrical in shape, on the pottery ones very often triangular; they were probably used to tie the lid securely to the mouth of the vase. The triangular handles occur in threes or fours around the upper part of the pot. They are a special characteristic of the standard type of the decorated vases, but do not belong exclusively to the decorated pottery, occurring also with one type of the incised ware.

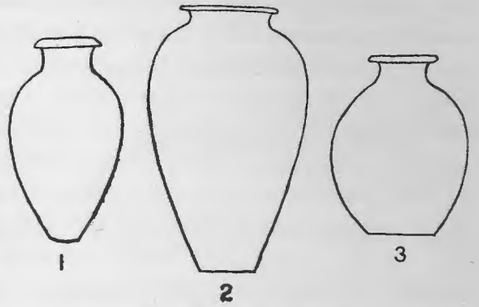


Fig. 35. 1. From Jemdet Naṣr; *Jemdet Nasr*, pl. 77, 4. 2, 3. From Egypt; *Corpus*, pl. 37, D 78 F; pl. 32, D 21 M.

With these remarks the vast and still very imperfectly known domain of Egyptian painted pottery must be left, and the even less-known subject of the incised ware taken up.

V. The Incised Pottery

The incised ware which is to be discussed here is *not* Petrie's "black incised pottery (N)." It is that which Miss Caton-Thompson found at Hammāmīya,[1] and which she called "herring-bone ware." The name is here changed to avoid giving the wrong impression that the herring-bone pattern is the only one found incised on this pottery. Similar incised ware was also found by O. Myers at Armant[2] and by Junker at Merimda,[3] which was one of the reasons for dating this settlement on the Western outskirts of the Delta to the period of Naḳāda II in Upper Egypt (see pp. 17 f. above).

This incised pottery of Egypt provides evidence that the culture of the Uruk period and the corresponding civilizations of Iran made their influence felt even in Egypt, as was mentioned before (see pp. 53-54 above). This statement must now be amplified.

The leading type of this group is a vase with three or four triangular lug-handles joined by an incised band. Miss Kantor in a recent article has drawn attention to this characteristic vessel.[4] She quotes two examples of it. One was found at Mustagidda, tomb 1837 (fig. 36, 2)[5], the other at Badāri, cemetery 3800 (fig. 36, 1). Although they were not found in a closely dated context Miss Kantor is certainly right when she argues that they belong to the Naḳāda II period. Their shape alone would vouch for that. Miss Kantor also rightly quotes similar vases from Mesopotamia as possible prototypes, but her dating of these to Jemdet Naṣr times cannot be so readily accepted. The pot she mentions from Warka was found in stratum VI (fig. 36, 3); it is discussed

[1] *Bad. Civ.*, p. 85, pl. 73, 147.148.
[2] *Cem. Arm.*, pl. 54, 6.
[3] H. Junker, *Merimde-Benisalâme* (*Westdelta*), 3. *Bericht* (1932), p. 80, fig. 10.
[4] *The Early Relations of Egypt with Asia*, in *Journ. of Near Eastern Studies* 1, pp. 189, 190.
[5] Cf. *Mostag.*, pl. 30, 1837.

by A. v. Haller.[1] Dealing with the red Uruk pottery he says: "The red ware is especially frequent in stratum VI." He then goes on to describe this type, which is bright brick-red in colour with a thin wash. It has four lug-handles which have between each two of them a ribbon with an incised net-pattern. The fragment from Badāri—the upper half of the vase only is preserved—is of polished red pottery; it has four lug-handles of the same triangular shape as those of the

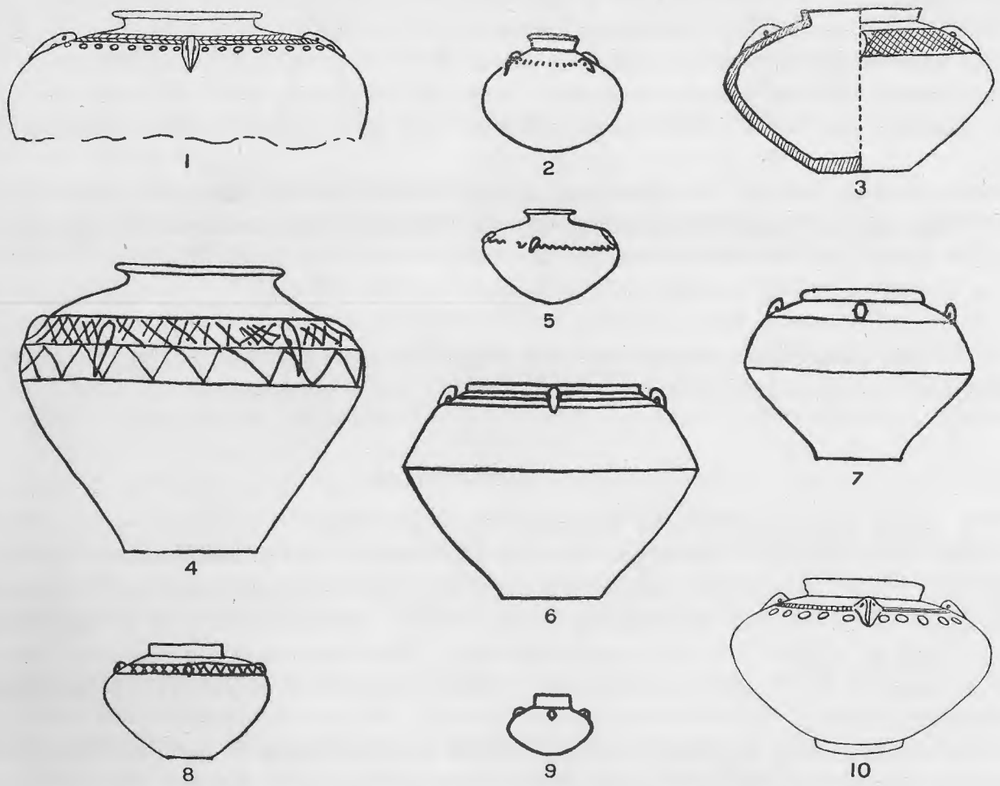


Fig. 36. 1, 2. From Egypt; *Bad. Civ.*, pl. 40, D 59w; *Mostag.*, pl. 35, 24. 3. From Uruk VI; *Warka* IV, pl. 19, D, *b*. 4, 5. From Susa II; *Mém. Miss. arch. Perse*, XXV, p. 191, fig. 24, 8; p. 196, fig. 32, 17. 6-9. From Jemdet Naṣr; *Jemdet Nasr*, pl. 64, 1.2.12.4. 10. From Telloh; de Genouillac, *Fouilles de Telloh*, I, pl. 25, 2.

Uruk pot, and between each two of them is an incised ribbon of a cord pattern, a row of studs being underneath. Brunton does not seem to have found this vessel strange in any way; he has grouped it with the decorated pottery, and has not commented on it in the text. It seems therefore that the piece is of Egyptian make, not imported.[2] One thing is evident: it does not differ fundamentally in shape from similar vases of the decorated style. As we have seen from the Uruk specimen, shape and decoration derive ultimately from the Uruk period. A vase of this type from Telloh (fig. 36, 10), dated to the Uruk period, even has the same row of studs underneath

[1] *Warka* IV (1932), p. 39; W 12036 M. 1.

[2] I have not handled the fragment, nor do I know where it is kept. A circular sent to nine of the eleven museums (two are in enemy territory) that share the pottery of Cemetery 3800 among them, has failed to trace it.

the incised decoration. Does this mean that the Badāri piece should be dated to the same time? Not necessarily, for, as we shall see, this is a long-lived type. It turns up in Susa II[1] (fig. 36, 4.5), but unfortunately the excavation at Susa does not yield a stratigraphy which would allow us to date these pots with certainty as contemporaneous with the Uruk period. The excavations at Susa provided not only the large form as found at Badāri but also the related one of the little vessel from Mustagidda (fig. 36, 2.5). We should compare with these the relevant vases from Jemdet Naṣr[2] (fig. 36, 6-9), Mackay's type B, said by him to be a common shape there. The incised pattern between the triangular lugs has often degenerated to a mere incised line, and the pots are nearly always painted in polychrome. Those, however, which have the incised band between their triangular lugs usually lack the painted decoration. Some of these pots have a cream-coloured slip, as has the one found at Mustagidda. Here we have a more precise dating. The vessels with polychrome painting are of the Jemdet Naṣr period. There is nothing in Mackay's publication which allows us to date the lug-handled pots with the incised bands to an earlier time than those painted in polychrome, which he evidently takes as contemporary. Thus we learn that a pottery type characteristic of the Uruk culture, in fact one of the very few shapes that can be assigned with certainty[3] to that civilization, survives into the Susa II and Jemdet Naṣr period. Therefore, as we have no stratified excavation in Egypt which would date our pot there, we can only point to a connection with the Uruk civilization, without knowing whether this was a direct one during the Uruk period, or a second-hand one brought to Egypt in the trail of the second painted vase-culture.

Fortunately the matter does not end here, for the vase with the triangular lugs and incised band is not the only Uruk shape which made its way into Egypt.

Miss Kantor, in her article mentioned above, points to another form of Naḳāda II pottery for which she wants to establish a Mesopotamian connection,[4] namely the spouted jar. While agreeing with her in this point, I must draw attention to its occurrence in an earlier period than Jemdet Naṣr. Although the spouted jars are not as a rule incised, they may be conveniently discussed here, and at the same time a few plain vases belonging to the context, as I have not at present an opportunity to devote a special section to the plain ware of the period.

The spouted jar of Uruk is first found in stratum XIII, where the "unpainted Uruk ware" to which it belongs makes its first appearance[5] (fig. 37, 6). At this early stage it resembles the Egyptian type (fig. 37, 1-4) in only a general way, as a high vase with a longish spout in the upper part. The shape remains in use throughout the period of the Uruk pottery (fig. 37, 7.8); in stratum V it is fine and wheel-made, and is therefore classed with the "pottery of stratum VI."[6] This is a special group which is first found in that stratum, and differs from the earlier Uruk pottery by "the fineness of shape and material, and by the care that has been lavished on its manufacture."[6] The spouted vase of this time is much nearer to the Egyptian type (fig. 37, 1.5). Both have rounded bodies and funnel-shaped necks; the curved spout is thickest at its bottom, and points upwards. The spouted jar of Uruk is made of rougher or finer clay and is without a slip. The Egyptian pots are classified by Petrie under "fancy forms"; this makes it extremely difficult to find out their ware. As far as can be judged from those I have handled and from the

[1] *Mém. Miss. arch. Perse*, XXV, pp. 190 ff.

[2] *Jemdet Nasr*, pp. 240 ff.

[3] *Warka* IV, p. 39.

[4] *Journ. of Near Eastern Studies* I, p. 190.

[5] *Warka* IV, p. 41.

[6] *Op. cit.*, p. 44.

scanty references in publications, they are made from various materials. Quite a few are made of a fine and pure clay without slip, and since we know now that at least the slow wheel came into use in Egypt during the Naḳāda II period,[1] the wheel may have played a part in the manu-

Fig. 37. 1-4. From Egypt; 1, *Mostag.*, pl. 34, 17; 2-4, *Corpus*, pls. 18, F58a. F58k; 37, D 92. 5-8. From Uruk V, XIII, VII; *Warka* IV, pls. 19, D, c′; 17, D, p. q; 18, D, g. k′. 9, 11. From Susa II; *Mém. Miss. arch. Perse*, XX, p. 103, fig. 2. 12-14. From Jemdet Naṣr; *Jemdet Nasr*, pl. 63, 5.13.10.

[1] Dora Billington in *Cem. Arm.*, p. 177.

facture of these vases, but this must remain doubtful pending investigation. Some spouted vases are of what Petrie termed "rough" ware, and some are of the polished red variety.

The vase represents a widespread type in the Asiatic zone, yet it seems to be of the Jemdet Naṣr age in places away from Warka. Some of the Susa II examples are near enough to the Egyptian ones (fig. 37, 9-11). Those found at Jemdet Naṣr itself seem a little more developed in shape; some of them are decorated with simple polychrome patterns (fig. 37, 12-14). In Egypt the spouted pot is observed during the whole of the fully developed Naḳāda II period. The earliest example is the little rough one with the incised pattern round its neck, ascribed by Petrie to S.D. 40-41. It was found in tomb 1759 at Naḳāda, which is dated to S.D. 41.[1] The pot, possibly wheel-made, is of rough clay, the rim of its spout is now damaged; the surface around its neck has been smoothed to receive the incised decoration. It is now kept in the Ashmolean Museum together with a polished red one (type P 66) from the same tomb. With them was a copper pin of the usual type, now in the Egyptian Department of the Berlin Museum, while a little horn vase and the well-known "prehistoric" glass Hathor-head[2] are in the University College collection. The rest of the vases quoted by Petrie[3] I cannot trace, yet I see no reason to disagree with Petrie's dating.

There is another spouted vase from Naḳāda,[4] dated to S.D. 43, one from Diospolis, tomb U 187 A (fig. 37, 3), of S.D. 61, and one found at Abuṣīr el-Meleḳ and dated by Scharff to the end of the prehistoric period or the beginning of the First Dynasty, to mention only a few examples.[5] As we possess none so far which is dated to the very beginning of the second period (S.D. 38-40) it seems likely that this characteristic vase came into Egypt together with the bulk of the innovations of Naḳāda II, and not at an earlier date as a repercussion of the Uruk period of Mesopotamia.

Two more shapes of "rough," unpainted pottery must be mentioned here, the bell pot or *Glockentopf*,[6] and the high-handled cup. The bell pot is described among the "hand-formed, unpainted Uruk pottery" of stratum XII. This is a rough ware of reddish, yellowish or grey colour. Haller says[7] of this vase: "Among the vessels formed for the greater part rather roughly by hand [my fig. 38, 1-3] the so-called bell pots are the most typical, for it is this shape, which keeps returning up to stratum IV, that gives its imprint to the Uruk pottery." In Egypt the bell pot is classified by Petrie among the "rough" ("R") and the "late" ("L") wares (fig. 38, 4.5). It is a very common shape during Naḳāda II: a considerable number of these pots are often found in one tomb. They are of a brownish clay and generally, like their Mesopotamian prototypes, very roughly and carelessly made. Humble though they are, their presence in any prehistoric Egyptian tomb at once dates it to the second Naḳāda period.

We know very little of the shapes of the Uruk pottery, for most of it has been found broken into sherds from which the shapes of the vessels to which they belonged cannot be reconstructed. It is therefore a fact of some importance that the two types which the excavator thinks to be the most characteristic of their period, namely the spouted jar and the bell pot, are found in Egypt

[1] *Preh. Eg.*, pl. 51.
[2] *Op. cit.*, pl. 9, 47. I agree with Lucas, who thinks the piece is an intrusion of much later date.
[3] *Op. cit.*, p. 43. [4] *Op. cit.*, pl. 18, F 58 R. [5] *Die Altertümer*, p. 110.
[6] This is a very misleading name, for this pot has nothing whatever to do with the *Glockenbecher*, the bell beaker of prehistoric Europe; but as Haller has used this term for his type (*Warka* IV, 41), I cannot well alter it.
[7] *Loc. cit.*

also. They belong to the unpainted ware in Uruk, and in Egypt also are found among examples of this type of pottery, though they occur occasionally made of other wares.

The loop-handled pot is very rare in Egypt. I know only of the three examples (fig. 38, 13-15) adduced by Miss Kantor. Following Petrie she wishes [1] to equate them with Palestinian forms of which the handles only are preserved. It is doubtful whether an equation on such a slender basis should be attempted. A high-handled pot occurs also in Uruk XII (fig. 38, 6-9), and here again we ought not yet to try to establish a connection, though it was shown above

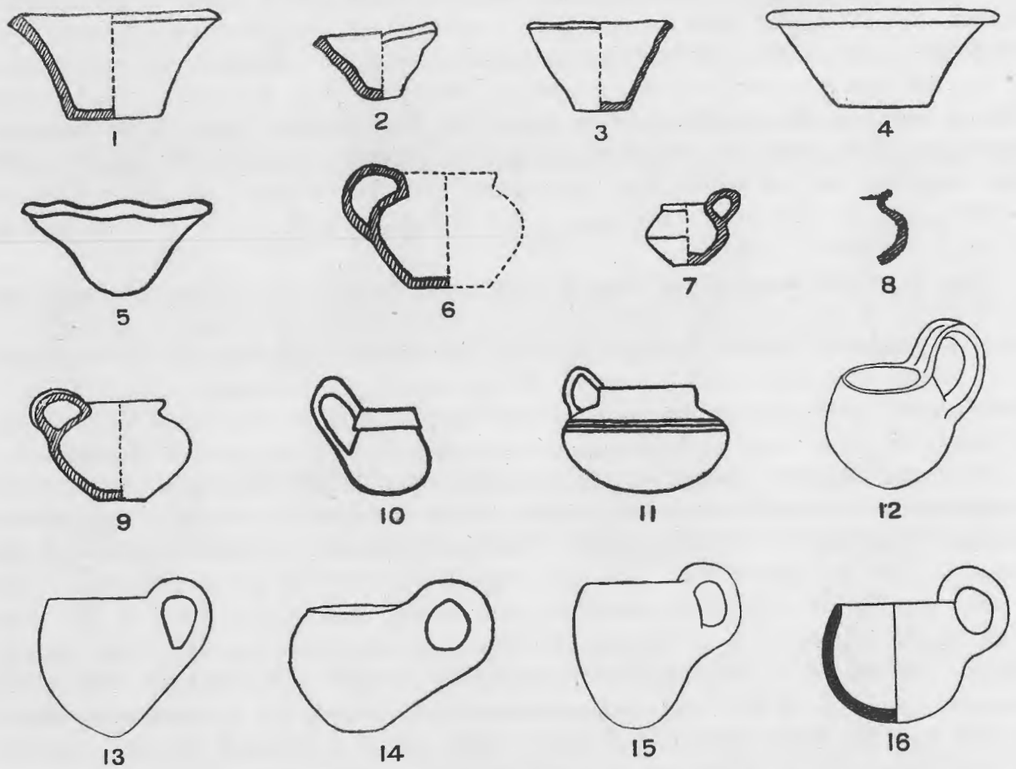


Fig. 38. 1-3, 6-9. From Uruk XII to IV; *Warka* IV, pls. 18, A, *c*; 19, A, *t'*; 20, A, *b*; 18, C, *u*; 19, B, *h''*, *i''*, *k''*. 4, 5, 13-15. From Egypt; *Corpus*, pls. 45, L 7 G; 38, R 4; *Diosp. Pa.*, pl. 19, 70; *Bad. Civ.*, pl. 46, 12; *Mostag.*, pl. 34, 19. 10, 11. From Jemdet Naṣr; *Jemdet Nasr*, pl. 64, 26.23. 12. From Susa II; *Mém. Miss. arch. Perse*, XX, p. 103, fig. 2. 16. From Yorgan Tepe; *Nuzi*, II, pl. 41, O.

that other shapes of that culture and period found their way into Egypt. Miss Kantor, again following Petrie, dates the loop-handled cup to Naḳāda I. It is her main evidence of a connection between Egypt and Palestine at that early period. Of the two other types she adduces to strengthen her argument—the pottery ladle and the footed vessel—she has herself to admit that they cannot be related with certainty to Egyptian forms. As her Egyptian samples are taken from Merimda they are later than Naḳāda I, but even in the case of the loop-handled pot it must be deemed a mistake to accept the early date. The loop-handled cup is a foreigner in Egypt.

[1] *Journ. of Near Eastern Studies* I, p. 176.

It evidently serves a special purpose, that of a filler. Vessels of the same type occur also in Western Asia, though, it seems, as rarely as in Egypt. The three Egyptian fillers are unfortunately not well dated. One was found at Diospolis (fig. 38, 13) and was illustrated by Petrie among his "late" group. He later changed his opinion [1] and placed the type before S.D. 40. The other two fillers were found by Brunton, one at Badāri, the other at Mustagidda. The Badāri pot (fig. 38, 14) was found together with eight others among village rubbish on Spur 3. Brunton assigned [2] the whole group to S.D. 37-46; this, as we shall see, fits in well with the date of the Asiatic pieces. Unfortunately he altered this dating in the later part of his book [3] and dated the pot as "probably Early Predynastic." The vessel from Mustagidda was a surface find (fig. 38, 15); it comes from Area 3900, which must have been the site of a settlement.[4] Brunton dates it to Naḳāda I, probably in consequence of the date assigned to the one from Badāri. It differs from the two others in that it has a red slip.

Fortunately the Asiatic vases are better dated. One was excavated at Yorgan Tepe (Iraq).[5] It belongs to level X of pit L 4, which is thought to be of the Uruk period (fig. 38, 16). It is very similar in shape to the Egyptian vases, though it has a somewhat more rounded bottom. It resembles the pot from Mustagidda most, for it also has a red slip. Another closely related pot was found in Susa II (fig. 38, 12). It was excavated by de Mecquenem from the "IIIe niveau" of the "Acropolis" of Susa and was grouped with the spouted jar just discussed. It therefore has to be placed with this jar and the bell pot—for Egypt in the Naḳāda II period. Whether the loop-handled cups from Uruk IX to VI (fig. 38, 6-9), or the little fillers from Jemdet Naṣr (fig. 38, 10.11), should be considered as belonging to the same group, must be left to further investigations.

This digression into the realm of the plain pottery must not end without a word about the problematic wavy-handled pottery. Petrie's theory of the development of these pots must be abandoned (as was explained on p. 41), since all the shapes are contemporaneous. They are certainly not an Egyptian invention, and Miss Kantor is doubtless right in claiming that they are a link between Egypt and Palestine. Indeed, we may even claim them as being perhaps the earliest connections established across Mt. Sinai.

But let us return to the incised ware. The most important variety (fig. 39, 1-3; pl. 6, 6) is the one Miss Caton-Thompson calls the herring-bone pottery.[6] It is dated by her excavations at Hammāmīya to round about S.D. 40. Petrie published it [7] as one of the characteristics of early Naḳāda II. It was found at Merimda, and is one of the things which date this village to the same period. It occurs in the settlement of Armant also.[8] Miss Caton-Thompson found evidence in the hut-circles at Hammāmīya that the decorated pottery there is later than the herring-bone ware.[9] Further excavations must show whether this is an accident, or a local peculiarity, or whether it holds good for the whole of Egypt. If the last should prove true, it is difficult to see how to associate it with the occasional occurrence of decorated pottery during Naḳāda I. Petrie's asser-

[1] See G. E. Wright, *The Pottery of Palestine from the Earliest Times to the End of the Early Bronze Age*, p. 28.
[2] *Bad. Civ.*, p. 44.
[3] *Op. cit.*, p. 55. He derives the shape from that of a gourd, and regards it as "a decided link with African ideas."
[4] *Mostag.*, p. 76; pl. 32, 2.
[5] *Nuzi*, I, p. 509, *Appendix A: Chronology*, by H. W. Eliot.
[6] *Bad. Civ.*, p. 76.
[7] *The Making of Egypt*, pl. 21, 41.
[8] *Cem. Arm.*, pl. 54, 6.
[9] *Op. cit.*, p. 76, 7.

tion has so far been accepted for this, in the absence of reasons to the contrary, but it is clearly in need of further confirmation through new excavations. The Badāri evidence is the only sign as yet of a period of incised pottery in Egypt intervening between the two painted pottery cultures; it must certainly be kept in mind.

The herring-bone pattern is not unknown in Iraq, but seems confined to its north-westerly region. It was found at Nuzi together with the loop-handled pot mentioned above (fig. 39, 5), but its main occurrence there belongs to the period preceding that of the filler (fig. 39, 6).[1] At

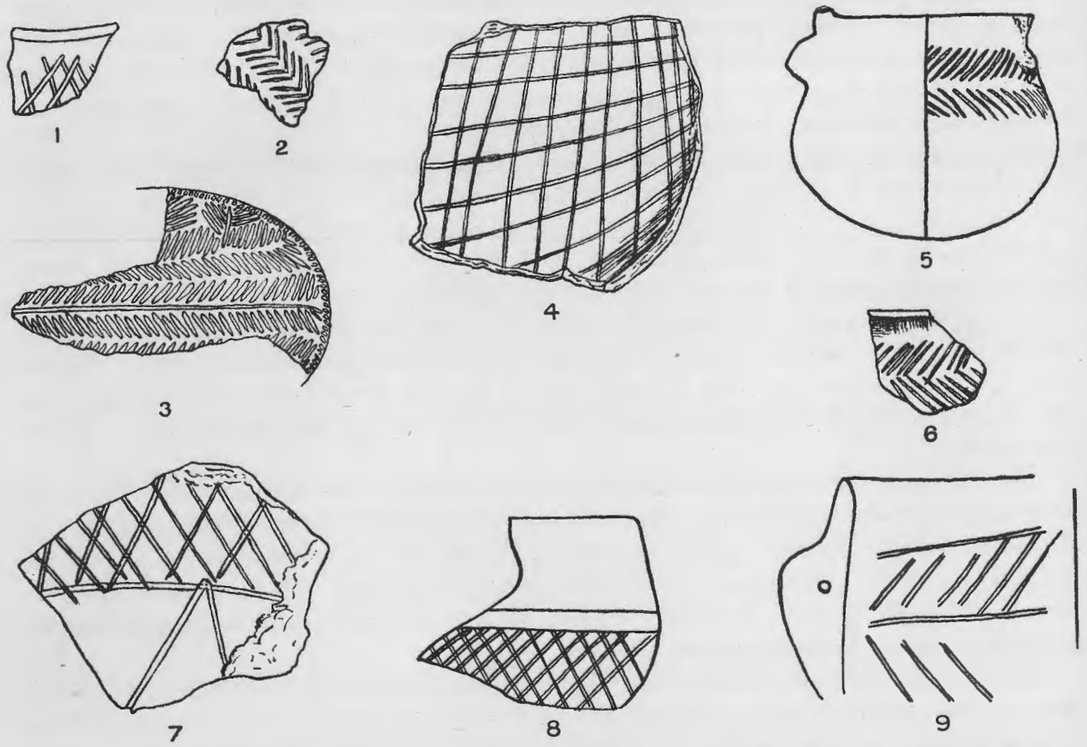


Fig. 39. 1-3. From Egypt; *Bad. Civ.*, pls. 72, 120.121; 40, 82b. 4-6. From Yorgan Tepe; *Nuzi*, II, pls. 45, B; 41, R; 46, E. 7. From Al-'Ubaid; *Al-'Ubaid*, 19, 1450. 8-9. From Nineveh III-V; *Ann. Arch. Anthr.* 20, pl. 50, 9.13.

Tepe Gawra it is first mentioned as from stratum VIII,[2] where a single sherd was excavated, and it becomes common in stratum VII,[3] where the spouted vase was also found. Stratum VII is of the Jemdet Naṣr period. In Nineveh III to V (fig. 39, 9) it is associated not only with the spouted jar but also with the bell pot and the urn with the triangular lugs. It should therefore be classified in Egypt as belonging to the complex of the incised and plain pottery already discussed in this chapter. But this is not all. Closely associated with the herring-bone pattern is one which was found together with it at Hammāmīya. A great part of the pot—as we have only fragments of this ware we cannot tell whether the whole surface or not—is covered with an incised net-like

[1] *Nuzi*, I, Appendix A, pp. 508, 509.
[2] *Gawra*, p. 44.
[3] *Op. cit.*, pp. 45-46 (no example illustrated).

design (fig. 39, 1). This pattern occurs at Yorgan Tepe (fig. 39, 4), at Nineveh III-V (fig. 39, 8) and even at Al-'Ubaid (fig. 39, 7), where the herring-bone pattern seems to be absent.

A further type which must be mentioned here is decorated with impressions made by the tip or nail of a finger. A well-preserved pot of the first variety comes from grave 191 at Naḳāda (pl. 8, 1). Its globular body is covered all over with indentations made by a finger-tip; the effect produced is that of a sort of barbotine. A short, plain neck helps to set off the decoration. Three other pots from the same tomb, one polished red (type P 55) and two black-topped (types 53a and 58c), do not differ from the normal.[1] Sherds from similar vases were found in the settlement of Armant, together with fragments of herring-bone ware, and one showing nail impressions. At Hammāmīya a bowl was picked up which, judging from the rather bad illustration (fig. 40, 4),

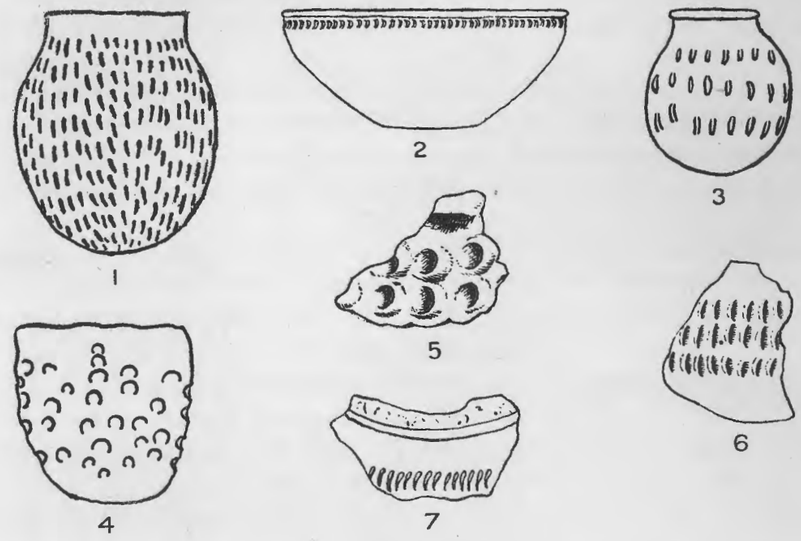


Fig. 40. 1-4. From Egypt; *Naq. Bal.*, pl. 36, 93a; *Bad. Civ.*, pl. 40, 82h. 93a2. 93h. 5-6. From Yorgan Tepe; *Nuzi*, II, pl. 45, O.J. 7. From Uruk V; *Warka* IV, pl. 19, D, *w*.

was decorated in the same way. It was found in a hole (3835) together with a rough pot (type R 17f). Vases with similar decorations were excavated from Yorgan Tepe (fig. 40, 5), where most of them belong to level XI.[2] More frequent there than elsewhere are vessels which have been incised with the finger-nail (fig. 40, 6). One fragment is illustrated from Uruk V (fig. 40, 7); in fig. 40, Nos. 1-4 are Egyptian: 1 is from Naḳāda, 2 and 3 from Hammāmīya. 2 was found in a tomb (4603), and 3 comes from a settlement (2094). These are, of course, not all the vessels of this type found at an Egyptian prehistoric site: all the pottery mentioned in this chapter is more or less frequent, and we should probably know more of it if more settlements had been excavated. The greater part of the incised samples mentioned here comes from village sites, only a little from tombs. All of them, both incised and plain, were introduced into Egypt during the early Naḳāda II period, evidently as hangers-on of the second painted vase culture, with

[1] All four vases now in the Ashmolean Museum. The one with the finger-tip decoration is published in *Naq. Bal.*, pl. 36, 93b; *Corpus*, pl. 37, D 93b.
[2] *Nuzi*, I, p. 600.

perhaps the single exception of the herring-bone pattern. Since in Asia they survive into the Jemdet Naṣr age, nothing speaks against their being of the later period in Egypt too. What must be emphasized is the fact that a distinctive group of pottery found in Egypt is dependent in shape or decoration, or in both, on prototypes which make their appearance during the early Uruk period in Mesopotamia. To this group belong the pot with the triangular lug-handles and the incised bands between them, the spouted jar, the bell pot, the loop-handled pot, the

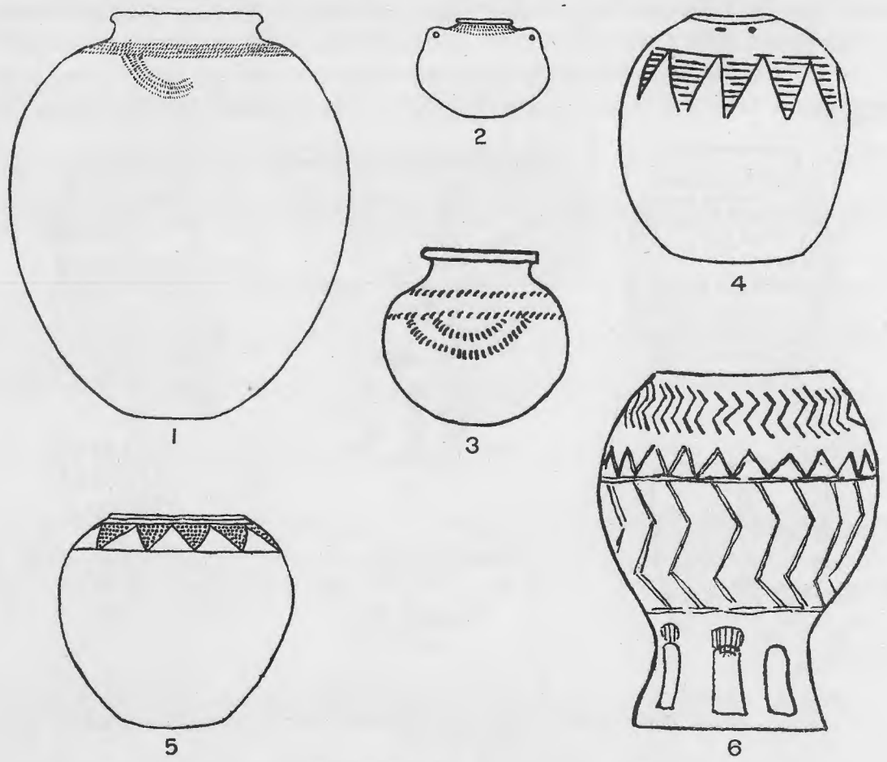


Fig. 41. All from Egypt. 1, 2, 5. From Badāri; *Bad. Civ.*, pls. 45, 8; 37, 80t; 40, 74k. 3. From Naḳāda, tomb 1352; *Corpus*, pl. 13, 76 G. 4. From Diospolis; *Diosp. Pa.*, pl. 17, 49. 6. From Ballāṣ, tomb 394; *Naq. Bal.*, p. 16; pl. 35, 76.

herring-bone, the net pattern incised in the clay of the vessel, and the vases decorated by finger-tip or nail impressions.

There remain two more types of incised pottery to be discussed, though their association with the group just described is, to say the least, doubtful. One is fairly common: it is found both in the polished red and the "rough" wares. The polished red pots are usually of a darkish colour. Sometimes they are provided with lug-handles and are squat, sometimes they are barrel-shaped like the stone vases.[1] Around their necks a pattern is incised either by impressing a cord or by marks made with a pointed piece of wood or flint in imitation of cord. It is like a necklace of several rows; sometimes semicircular lines branch off from the lowest row, forming a sort of additional pendant (fig. 41, 3). Oddly enough, these pendants often appear to be arrested in the middle of

[1] Fig. 41, 2; *Corpus*, pl. 13, 80 P.

their course and do not reach the lowest row of the necklace again (fig. 41, 1; pl. 12, 4). The type turns up at the very beginning of Naḳāda II, in S.D. 38. A fragment of a red polished pot with three rows of incisions round the neck was found in tomb 1899 at Naḳāda (S.D. 38).[1] None of the other pottery from the tomb is known to me, but it contained a small, oval stone vase of greenish slate (of the type *Corpus*, pl. 40, 135), some simple armlets in ivory and alabaster, and a long necklace of disk-shaped beads in red steatite, carnelian, turquoise, and quartzite,[2] so that it certainly belongs to Naḳāda II.

A little barrel-shaped vase was found at Naḳāda, tomb 472, dated S.D. 45, which also contained a twisted flint blade, another rough one, and some porphyry balls.[3] There is no need to quote here all the vessels with this type of decoration which are known. They are quite frequent, and many more of them will be noticed in the various museums in which they are kept, once attention is drawn to them. They are much commoner at Naḳāda than the examples in the *Corpus* suggest.

One vase with a simple cord pattern round its neck comes from an earlier context; it is of *Corpus* type P 40*f*, from Naḳāda, tomb 1783 (S.D. 34). Four black-topped pots,[4] a small black and brown cylinder vase (F 96b) and a necklace of glazed steatite beads were found with it. These objects may not have been the whole contents of the tomb, but none of them opposes the early dating.

No parallels to these cord-incised vases are known to me from Asia. The curious device of not letting the lower rows of the necklace return to a point of suspension (fig. 41, 1) looks like an Egyptian feature, but the technique of using cord impressions or imitations of them for decoration is difficult to fit into the habits of Egyptian craftsmanship.

The other type of incised pottery is probably late. A bellied pot without a neck has a row of hanging triangles incised around its mouth or a little lower (fig. 41, 4.5); they are filled in sometimes with dots and sometimes with lines. One of the pots has two suspension holes on each side of its mouth (fig. 41, 4). None of the pots is dated with certainty; the one from Badāri (fig. 41, 5) is thought by Brunton to be of the First Dynasty [5] (S.D. 80). The incense burner (fig. 41, 6) should probably be dated to about the same time, in spite of Petrie's ascription to S.D. 34. The pot was found at Ballāṣ, and is said to have been in the same tomb as the well-known fat female figures and a sherd of the white cross-lined ware.[6] Evidently Petrie's dating rests on this association. We know very little about the excavations at Ballāṣ, but I would rather assume some accident by which an object intruded into an earlier context than accept the dating to Naḳāda I. Incense burners and pot-stands of similar design are not known elsewhere from Egypt. All we have are much simpler.[7] They belong to the end of the prehistoric and to archaic times. Frankfort [8] has shown their Asiatic connections. It is with Asiatic stands that I would correlate the Ballāṣ incense-burner. That very singular pot-stands (after all the incense-burner is simply a pot mounted on a stand) occur at this late protodynastic or early dynastic stage

[1] Now in Berlin: *Die Altertümer*, p. 107, 224; pl. 10.

[2] The stone vase and the necklace are in the Ashmolean Museum, the three armlets in the University College collection.

[3] The vase is in the Ashmolean Museum, the flints and porphyry balls are at University College.

[4] B 22g, 26a, 27f, 29e, all in the Ashmolean Museum.

[5] *Bad. Civ.*, p. 46, 3223.

[6] *Naq. and Bal.*, p. 16, tomb 394.

[7] *Corpus*, pl. 51, L 80-87.

[8] *Studies in Early Pottery of the Near East*, I, p. 129, fig. 13.

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is shown by one now in the Ashmolean Museum. It is not datable with certainty, but can hardly be assigned to any other time. It was found at Naḳāda, tomb 115 (pl. 12, 5). The object is boat-shaped; the prow is decorated with a ram's head, and the legs of the ram are shown in relief on the sides. There were originally nine circular holes to receive small pots. The sides are pierced by the triangular holes common in this type of object.

The description of this rather out-of-the-way pottery concludes the discussion on the incised pottery. A few remarks, however, should be added concerning the black incised ware (Petrie's type N).

VI. Some Additional Remarks on Pottery

Black incised pottery in Egypt is known from very different periods. Its earliest variety is that of the beakers, the only dated example of which was found in a Badārian tomb.[1] Their shape is unique among Egyptian pottery; they vanish with the Badārian period. No black incised pottery is known from Naḳāda I,[2] but with Naḳāda II black incised vessels of new types are sometimes found in the equipment of the tombs: at that time they are shallow bowls, flat-bottomed, or, more rarely and later, barrel-shaped vessels, provided with ledges inside their mouths to which conical lids are fitted. The latter shape continues into Old Kingdom times.[3] Black incised pottery occurs again later among the tomb furniture of the Pan-grave people, this time with globular pots and different patterns; it is associated with various Nubian cultures,[4] and its home must very likely be sought to the south of Egypt and probably to the south of Nubia also.

The black incised pottery of Naḳāda II with which we have to deal here differs in style of decoration from anything else known in Egypt. The commonest pattern consists of three door-like shapes of diminishing sizes, the smaller ones being inscribed in the larger (fig. 42, 2). Usually two of these sets of three fill the surface of one pot. Another characteristic design is a sort of three-winged figure in the middle of the bowl; it is shown in outline and is surrounded by incisions filled in with white (fig. 42, 1). The method of presenting the pattern negatively—by the space that is left empty—occurs more often on prehistoric pottery outside Egypt. It has been suggested that this pottery was imported from some unknown place, since it is very rare in Egypt. This may be so, but there is one pot from Naḳāda, tomb 1401,[5] which has the pattern of the superimposed "doors" incised in the usual way in a polished red pot (pl. 6, 7), and we cannot doubt that this was made in Egypt.

Since the technique of white incised decoration is very widespread it is dangerous to assume connections unless we can show a definite affinity in the shapes and patterns of the vessels. An enquiry into this question will not be attempted here, but should form the subject of a special memoir.

But even if we may not base a continuation of Egyptian relations with the South on the black incised pottery, we have other types of vessels on which we can rely with greater certainty, to show that relations were not totally broken off during Naḳāda II. When excavating the settlement of Armant, O. Myers found among its pottery some sherds of Badārian rippled ware. He says[1] of them: "Possibly the ripple sherds are also not intrusive, but rare survivals." With this agrees the fact that a pot with a rippled surface was found at Naḳāda, tomb 31, S.D. 63. It is globular in shape, and of thick yellowish clay; it is vertically rippled in the Badārian technique (pl. 12, 2). Its outside is painted red, not evenly, but rather as if the paint had been distributed on its surface by the finger-tips. The vessel is now in the Ashmolean Museum. Four beads of glazed composition and a rough saucer from the same tomb are in University College, London; they confirm the late dating. A near relation of this vase comes from Naḳāda, tomb 1103, now also in the Ashmolean Museum (pl. 12, 1). In shape, clay, and painting it is similar

[1] *Bad. Civ.*, pl. 26, group 569.

[2] One black incised plate is known from S.D. 33 (*Corpus*, pl. 27, 55), different in style and shape from the black incised ware of Naḳāda II, and one from S.D. 35 (*Corpus*, pl. 26, 15).

[3] *Mostag.*, pl. 64, 25.

[4] G. A. Reisner, *Excavations at Kerma*, IV-V, pl. 70.

[5] Now in the Ashmolean Museum. I have given the contents of this tomb above, p. 34.

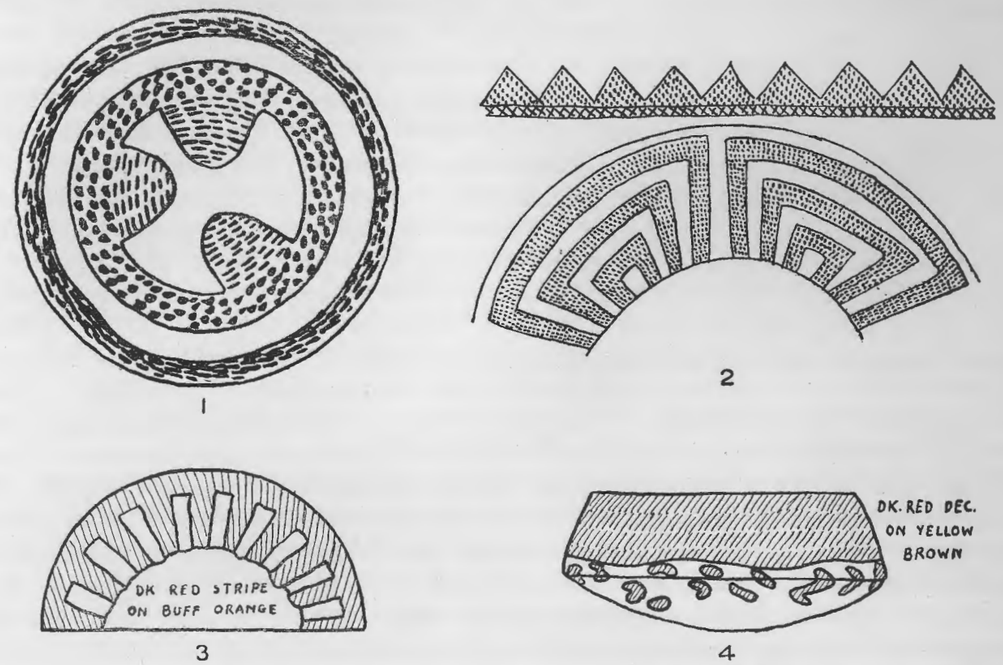

Fig. 42. All from Egypt. 1, 2. Black incised pottery; *Corpus*, pl. 26, N 3; *Die Altertümer*, p. 127. 3, 4. From Badāri, painted; *Bad. Civ.*, pl. 16, 15.16.

to that of tomb 31, but it is not rippled. The tomb is not dated, nor do the three fragments of a hairpin, a few grains of malachite, and some human hair intermingled with tiny bits of cloth, now in University College, give any help for a closer dating. A third pot decorated in the same technique is from tomb 114 at Naḳāda, dated to S.D. 56 (pl. 12, 3); it differs from the first two in that it is somewhat flatter in shape and the inside is treated in the same way as the outside. Another vase from the same tomb is of smooth brown clay (*Corpus*, type F 85), and with its two knob-handles is certainly a late shape. Both these vases are in the Ashmolean Museum. University College possesses an ivory hairpin and fragments of one or two others from the same grave. The last-mentioned pot (Ashm. Mus. No. 95.653) and the first one (Ashm. Mus. No. 95.654) have been described already by Griffith in his articles *Oxford Excavations in Nubia*. In some of

[1] *Cem. Arm.*, p. 175.

the prehistoric tombs Griffith excavated at Faras he found a pottery which he describes as follows: "In Nubia a charming variety of this 'black-mouthed' ware was obtained by applying the haematite in streaks, hatchings, lines, dabs, or triangles, producing a contrast between the red and the pale brownish ochreous colour of the plain surface. Only six of the richest graves in the cemetery at Faras contained it. In some examples of this 'variegated haematitic ware' the whole surface appears to have been painted with haematite and then wiped more or less irregularly, leaving the colour in varied shades. Some specimens are very fine, the ware thinner and lighter than is ever found in Egypt. . . . The outer surface of some fine specimens of the 'black-mouthed' ware has been covered with lines of short thin gashes or indentations, probably made with a comb, and afterwards has been polished so that the gashes appear only as a faint rippling. . . . Mr. Leeds has pointed out to me in the Ashmolean Museum two Egyptian examples of a similar use of haematite, and rippling, from Naqâdeh."[1] These two are the pots Ashm. Mus. Nos. 95.653-4 mentioned above. Griffith classifies the Faras examples among his "native wares" as different from Egyptian pottery, but anyone reading his description will think at once of Badārian rippled pottery, which was not yet known when Griffith wrote his article. The "variegated haematitic ware" is represented at Badāri also, though rarely, by such pieces as Ms. 15 and 16 in Brunton's corpus of Badārian pottery (fig. 42, 3.4). Whether the rippled sherds from Armant and the pots in Badārian technique from Naḳāda and Faras point to a fresh invasion of these wares, or whether the connection with their original source was never broken, we cannot at present decide. If we ever know more about the culture of Naḳāda I, this problem may be solved. But we certainly have to reckon with some influence from the South even during the period of Naḳāda II.

VII. The Stone Vases

Stone vases are a most characteristic part of Egyptian tomb furniture of all periods. The excellent and beautiful materials provided by the mountain ranges bordering on the Nile Valley were appreciated by the Egyptians from a very early age. Alabaster, basalt, red breccia, diorite, marble, serpentine, and many more stones, were all made into vases from prehistoric times onwards. The earliest dated examples were found in tombs of the Naḳāda I period;[2] the fullest development of the stone vase industry, however, belongs to the time beginning with the rise of the dynasties and ending with the Third Dynasty. The largest hoard of stone vessels ever found in an Egyptian burial was in the passages under the Step Pyramid, where tens of thousands of stone vases and dishes have been brought to light. Some of these go back to the beginning of the dynasties, for they are engraved with the names of Narmer and Ḥor-Aḥa; others may even be slightly earlier.[3] It seems probable that an industry which produced on such a copious scale exported its products to other cultured peoples of its time, and that Egyptian stone vases have been found in Mesopotamia and Iran. They should provide much-needed help in correlating the cultures of Egypt and Western Asia. However, nothing of the kind has been pointed out hitherto; this may be partly due to insufficient petrological investigation. Mesopotamia has no stone that can be used in the manufacture of vases, thus the raw material, if not the vases themselves, found on Mesopotamian sites must have been imported. But the publications concerned very rarely have anything to say about the origin of the stones used.

[1] *Ann. Arch. Anthr.* 8, pp. 8 f.
[2] No stone vases were found in Badārian graves nor in the Badārian stratum at Hammāmīya; see *Bad. Civ.*, p. 28.
[3] Lauer, *La Pyramide à Degrés: Compléments* (t. III). 30,000 to 40,000 stone vases were found (p. 3).

During the earlier painted-vase period hardly any stone vessels appear to have been in use among the population of Mesopotamia. At Al-'Ubaid three were found in prehistoric graves, none of which seems to be as early as the period to which that place has given its name.[1] At Uruk none has been found in the deepest layers, and the same is true at Jemdet Naṣr. H. de Genouillac when excavating at Telloh confirmed these observations. He says:[2] "Ces premières civilisations nous ont véritablement émerveillés dans leur art ménager par leur savoir et leur goût: celle d'El-'Ubaid, Suse, Ur et Telloh, en nous offrant leur fine poterie peinte; celle d'Uruk à Warka et Telloh, en nous laissant leur coupes et boîtiers de marbre poli." Unfortunately this writer does not mention the original sources of the stones from which the vases were made, and the term "marble" as used by archaeologists covers various materials.

In Assyria and Irān, where the mountains yielded the raw materials, stone vases seem to have been used since very early times. At Arpakhīya they belong to the Tell Halaf period; only one doubtful piece is perhaps of the Al-'Ubaid period, which here follows on that of Tell Halaf.[3] The vases were made of various stones: Mallowan mentions diorite, alabaster, white limestone, brecciated grey limestone, serpentine, chlorite rock, fine-grained micaceous calcareous sandstone, gritty shale, and steatite.[4] A single vase, exceptional also by its shape, was made of obsidian.[5]

Eighteen different types of stone vases were found at Arpakhīya.[6] Most interesting are those numbered 7-10, 17, 18, which are variants of one form (fig. 43, 7.8.10-15). A bowl of hemispherical shape—some bowls are shallower—has a distinctive ridge a short distance underneath its lip. The lip itself rarely protrudes beyond the line of the ridge; in one of the examples (No. 18), however, it is shaped like a funnel (fig. 43, 15) Mallowan's type 9 has a flat base added; Mallowan says that this type "constantly recurs, and from its association in TT 6 with the painters' palettes and paint may be a painter's mixing bowl. . . ."[7] An isolated example of the same type comes from the trial pit at Tepe Gawra (fig. 43, 11); it is of a mottled stone, and to judge from the photograph is so similar in shape and material to certain Egyptian stone vessels (e.g. fig. 43, 7) that it is hard not to believe in a connection. But there is one great difficulty in this, namely Mallowan's dating. The vases from Arpakhīya belong to TT 6, "the climax" of the Tell Halaf ware. Mallowan equates this stratum with those of Al-'Ubaid (II?) and Nineveh II (c). The piece from Tepe Gawra is not dated with certainty, but from its association with painted pottery is said to be of "high antiquity."[8] No outline drawing of it is published, but it seems to be of the same type as the pottery vessel from Tepe Gawra VIII (fig. 43, 12) which has the same ridge underneath the lip. This very type, Speiser points out,[9] is characteristic of Nineveh III, which he places in the Uruk period (Uruk XIII-IV), while Mallowan thinks it contemporary with the Al-'Ubaid period (Uruk XIV and below).[10] Tepe Gawra VIII is sub-

[1] See *Al-'Ubaid*, p. 184. The stone vases there mentioned as early come from tombs which contained spouted vases with incised designs, and are therefore not earlier than the Uruk period.
[2] *Fouilles de Telloh*, I (Paris, 1934), p. 50.
[3] *Preh. Assyria*, p. 25.
[4] The stones were identified by Dr. H. H. Thomas of the Petrographical Department of the British Museum, South Kensington.
[5] *Op. cit.*, p. 76.
[6] *Op. cit.*, p. 78, fig. 44.
[7] *Op. cit.*, p. 76.
[8] *Gawra*, p. 97.
[9] *Op. cit.*, p. 152.
[10] *Op. cit.*, p. 183; *Preh. Assyria*, p. 25.

divided into three strata, the latest of which, Tepe Gawra VIIIA, is of Jemdet Naṣr times. Therefore, if we follow Speiser, the pottery type in question must be ascribed to the latest phases of Uruk.

Speiser's dating agrees better with Egyptian periods than does that of Mallowan. The Egyptian vessels (in both stone and pottery) are of the first three dynasties, and occur even later. In his catalogue of predynastic stone vases Reisner gives them the type-number PD-XI, "cups and bowls with external rim."[1] In Petrie's *Funeral Furniture and Stone Vases* (1937) they figure

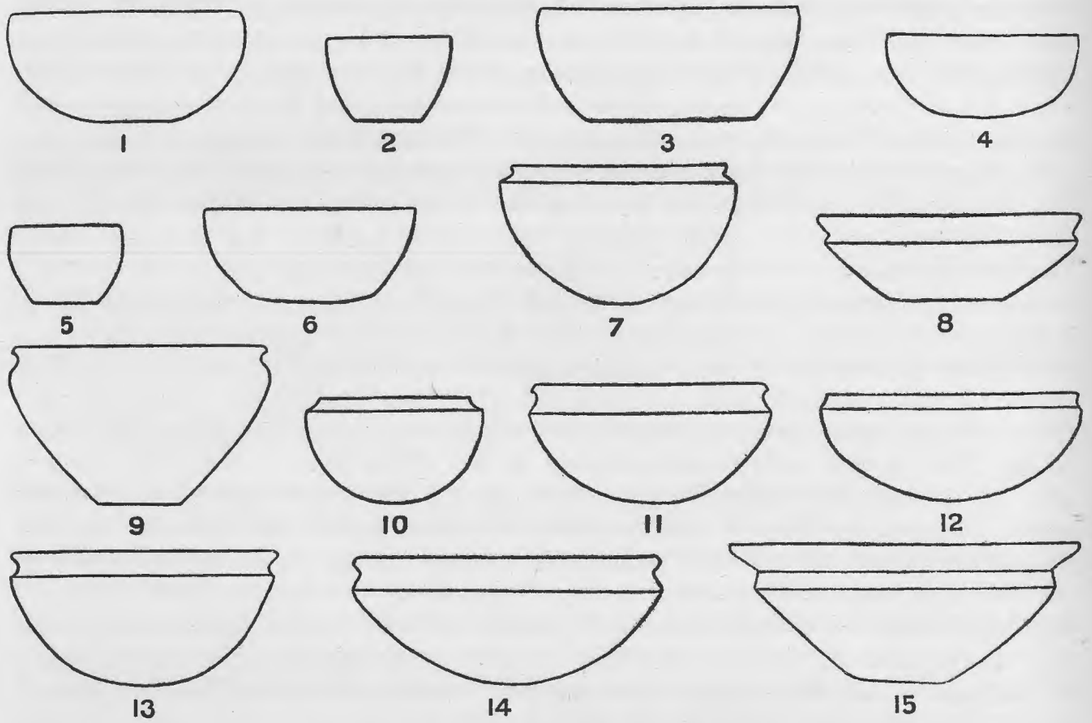

Fig. 43. 1-3, 7-10. From Egypt. 1-3, 8, 10. From Tarkhān; Petrie and others, *Tarkhan* I *and Memphis* V, pl. 35, 20g, limestone; 18s, 18d, alabaster; pl. 48, 39.37e, pottery; all First Dynasty. 7. From Badāri, tomb 3228; *Qau and Badari*, I, pl. 19, 35; limestone, Third Dynasty. 9. *Royal Tombs*, II, pl. 47 B, 69. 4-6, 11-15. From Assyria. 4-6, 13-15. From Arpakhīya; *Preh. Assyria*, fig. 44, 1-3.8.17.18. 11, 12. From Tepe Gawra; *Gawra*, pls. 44, *d*; 63, 20.

on pl. 4, Nos. 111-114, Dynasties I to III. The common type in Egypt has a narrow edge (fig. 43, 10), but a pottery bowl from Tarkhān (fig. 43, 8) has exactly the same funnel-edge and straight bottom as has Mallowan's type 18 (fig. 43, 15), and a similar type in basalt is published by Petrie, *op cit.*, pl. 17, 241.

Of the twelve remaining types from Arpakhīya three more, Nos. 1-3, are common in Egypt. They are simple bowls with curved sides (fig. 43, 1-6), and it might be argued that forms so simple could occur anywhere. But they are unknown to Naḳāda I and the earlier stages of Naḳāda II, and came into use in Egypt at about the same time as the types discussed above.

[1] *Mycerinus: The Temples of the Third Pyramid at Giza* (1931), p. 137.

During this period they also occur among the pottery. All this speaks in favour of a connection between these types and the early Assyrian ones. How the difference in time is to be explained, even if we accept Speiser's later date, and take into account the distance between the two countries, I do not know; a suggestion from the Assyriological side would be very welcome. It must also be remembered that we do not yet know exactly which phase in the Asiatic sequence of cultures corresponds to the Egyptian First Dynasty.

The goblet (fig. 44, 1) to which Mallowan gives the type-number 16 seems to be a rare form among the stone vases of Arpakhīya. Only one more vessel of similar type is mentioned; it was left in Baghdad, and is not reproduced. The shape of the published vessel is that of a hemispherical bowl with a hollow foot. Similar forms are very rare in Egypt also. Two goblets

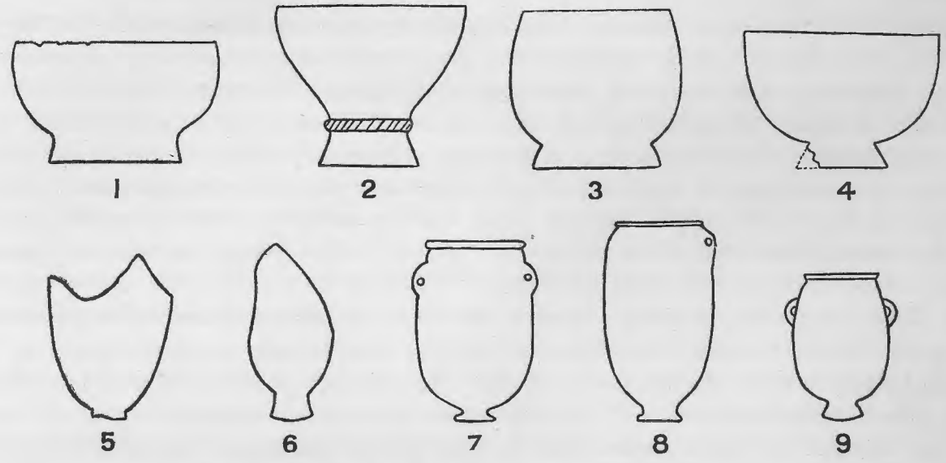

Fig. 44. 1. From Arpakhīya; *Preh. Assyria*, fig. 44, 16. 2-4, 7-9. From Egypt; Petrie, *Funeral Furniture and Stone Vases*, pl. 14, 143; Menghin and Amer, *op. cit.*, II, pl. 50, 1.2; *Preh. Eg.*, pl. 40, 130; *Die Altertümer*, 20, 549; *Bad. Civ.*, pl. 51, 1. 5, 6. From the fillings of the White Temple at Uruk; *Warka* III, pl. 20, a.

and what may be the foot of a third were found at Ma'ādi.[1] One complete specimen (fig. 44, 3) is made of mottled limestone, as is the one from Arpakhīya; though the bowl is externally deeper than that of the Assyrian one only a shallow concavity has been cut. The excavators suggest as the reason for this that the vessel was for cultural purposes only. Its outside is decorated with broad and low zigzag incisions which do not appear in the reproduction.[2] The other goblet (fig. 44, 4) is of basalt; it is of much finer workmanship than the limestone one, and is thought to be an importation. The bowl is flatter, and is nearer in shape to the Arpakhīya vessel, but its foot is much more worked out, which makes the vessel look somewhat unstable. The hollow basalt foot of a third vessel unfortunately has nothing left from which to reconstruct the bowl it once supported; it is a heavy piece of about 10 cm. in diameter, and must have belonged to a vase somewhat larger than the two goblets.

There is only one other Egyptian goblet which can be quoted in this connection, namely

[1] O. Menghin and M. Amer, *The Excavations of the Egyptian University in the Neolithic Site at Maadi*, II, pls. 50; 51, 6.

[2] *Op. cit.*, p. 40.

a beautifully carved slate vessel (fig. 44, 2) now in the collection of University College, London. Petrie classes it as protodynastic,[1] and it can hardly be of any other period; the vessel was bought, and is therefore without provenience.

Of the remaining types—there are only eight left of the 18—but one is foreign to prehistoric Egypt, namely the obsidian flask. Obsidian as a material for stone vases is first known in Egypt from protodynastic times, i.e. contemporary with the introduction of the vase forms discussed above.[2] But the two fragments from the Royal Tombs at Abydos are from bowls, and the small vases from the so-called tomb of Menes at Naḳāda are also of different types. Though Nos. 5, 6 and 12-14 of Mallowan's fig. 44 cannot be exactly matched from the Egyptian inventory, their shapes are not so foreign that some sort of relationship can be confidently denied.

Among the eighteen vases found at Arpakhīya ten represent types familiar from the Egyptian material. And not only are the shapes similar, but also the stones used in their manufacture. Diorite, serpentine, and breccia are mentioned by Mallowan. These rocks are used for just the shapes of stone vases well known in Egypt during Naḳāda II and in protodynastic times. They are foreign to the earlier periods of Egyptian prehistory.[3] Mallowan adduces no foreign parallel to the stone vases of Arpakhīya with the single exception of the obsidian flask. "It is at present," he says,[4] "the earliest example of an obsidian vase from Assyria, and for antiquity only the obsidian vases from Uruk can compare with it." This passage refers to the fragments of stone vases which were found in the Ziggurat of Warka when part of the terrace belonging to the White Temple was removed. Most of them are of limestone, but many also of obsidian. Among the bottoms preserved are some with feet too small to serve a practical purpose; they are called "button feet" (Knopffüsse). Jordan, who was then in charge of the excavations at Uruk, says of these fragments:[5] "The high antiquity of these vessels is beyond doubt, and the same shape of the button beaker that we found here in stone and obsidian occurs among the stratigraphically fixed 'Obêd ware from Eanna. It is therefore tempting to date these stone vessels to the 'Obêd period; their provenience does not conflict with this." These vases thus resemble the flask from Arpakhīya in material only, not in shape, and Mallowan, following Jordan, thought them to be of the Al-'Ubaid period. This early dating cannot, however, be maintained. When some years later Heinrich continued the excavations, he corrected Jordan's first impression.[6] The complicated account of his researches need not be repeated here; the conclusion arrived at is that the stone vases are of the Uruk period. It is relevant to our enquiry to devote some space to a discussion of the fragments from the Ziggurat. Heinrich has published profiles of all these,[7] thus supplementing the photographs already reproduced by Jordan.

From these reproductions two slightly different types can be distinguished. One (fig. 44, 5.6) has a conical foot, the other (fig. 45, 5.6) merely a small protuberance. The pottery vessels from Uruk XVIII (fig. 45, 8.9) seem to belong entirely to the first variety. No stone vases were recovered from the deep level, the fragments from the Ziggurat being the earliest found at Warka. The stone vases with a conical foot survive into the Jemdet Naṣr period. A deposit was found in a room of stratum IIIa of the Ziggurat which included a number of stone vases; these are of the type with conical foot.[1] Four of them are of a hard, green crystalline stone (cf. fig. 46, 1.2; pl. 13, 2). One, a magnificent specimen over three feet high, is of alabaster and is adorned with reliefs showing the presentation of offerings to the goddess Innin[2] and arranged in three panels around the vase. In the uppermost appear two of our footed vases; they may contain water or some other liquid necessary for the sacrifice, and suggest a use to which such vessels were put. Another vase of this type found in Uruk IIIa, not far from the deposit,[3] served as a container for a number of small objects.

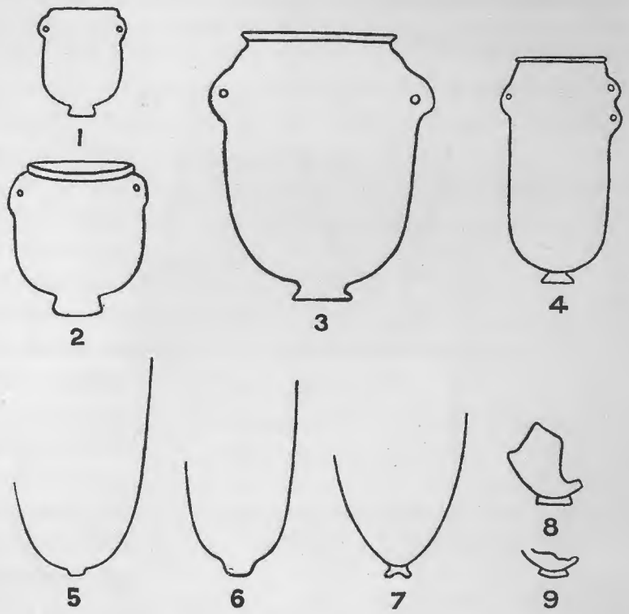

Fig. 45. 1-4. From Egypt. 1, 2. From Hammāmīya; *Bad. Civ.*, pl. 51, 2.3. 3, 4. From Naḳāda; *Naq. Bal.*, pl. 9, 70.68. 5-9. From Mesopotamia. 5-7. From the Ziggurat at Uruk; *Warka* VIII, pl. 59, W16232b.8995.W16701g. 8, 9. From Uruk XVII, unpainted pottery; *Warka* IV, pl. 16, C, Schicht XVII, b.d.

Stone vases of exactly the same types are not rare in Egypt. Those with conical feet either are provided with small lug-handles (fig. 44, 7-9; 45, 1-4; pl. 13, 1), or are plain like those from Uruk (fig. 46, 3-5; pl. 13, 3). The vessel W 14772f from the Uruk deposit (fig. 46, 1; pl. 13, 2) is so similar to Egyptian pieces (fig. 46, 4) that from the photograph it seems difficult to distinguish it from them. The Egyptian vases without lugs are all of basalt. A well dated example is from Diospolis Parva, tomb U 134 (S.D. 38).[4] Another, finely worked, was found in the prehistoric cemetery of Hierakonpolis[5] (pl. 13, 3). No details are given in the text, nor any description of the tomb in which it was found, or of the other contents of this. But since nothing else published from this cemetery can be earlier than Naḳāda II, the footed vase is in all probability of this period. A double vase, each part having a foot (pl. 13, 5), was found in the same cemetery and must be ascribed to the same age; it is of much coarser workmanship than the single one. The feet are small, and are set at a slight angle to each other, so that when one of them stands wholly on the ground the other touches it with its outer rim. This gives the impression that the double vessel was not meant to stand on these rather inefficient feet, but was hung by a cord passed around the bridge uniting the two pots.

[1] Petrie, *Funeral Furniture and Stone Vases*, pls. 3, 73; 14, 143.

[2] See Wainwright, *Obsidian*, in *Anc. Eg.* 1 (1927), p. 88.

[3] Table V in A. Lucas' article on *Egyptian Predynastic Stone Vases*, in *JEA* 16 (1930), p. 210, shows breccia, granite, and porphyritic rock as early as Naḳāda I. Of the breccia vases he quotes, only the one from Badāri, *Bad. Civ.*, pl. 51, 4, has a dated context. Its S.D. is between 35 and 37; the later date is the more probable, as is shown by a comparison with vase No. 6 on the same plate, dated S.D. 49-53 (on this dating see pp. 108 ff. below). The general statements in the publications of Diospolis Parva and Naḳāda about the use of granite and porphyritic rocks for stone vases are not reliable, see *Preh. Eg.*, p. 35, 84, but Lucas, in the "Early Predynastic" part of his table, quotes these publications for the two materials in question.

[4] *Preh. Assyria*, p. 76. [5] *Warka* III, p. 28. [6] *Warka* VIII, p. 51; X, pp. 29 ff. [7] *Warka* VIII, pls. 58-60.

[1] *Kleinfunde*, pp. 38 ff., pl. 21, a-c; *Warka* VII, pp. 13 ff. [2] *Kleinfunde*, pp. 15 f., pl. 38.

[3] *Warka* VII, p. 15, pl. 24, a. [4] *Diosp. Pa.*, pl. 7. [5] Quibell and Green, *Hierakonpolis*, II, pl. 64.

The feet of this double vessel are not conical, and form a transition to the mere button variety of Egypt. Two little vases found at Hammāmīya are very good examples of this type. One (fig. 45, 1), of pink limestone, has straight sides which turn inwards to form the little protuberance at its bottom, and two small lug-handles near the straight mouth. It was found loose in the rubbish of cemetery 1700,[1] the date of which is "mainly from S.D. 40 to 70."[2] The pot, therefore, probably belongs to Naḳāda II. The other (fig. 45, 2), of alabaster, is somewhat more rounded in contour, but otherwise differs little from the first. It was found in a child's tomb (Hammāmīya 2063), which Brunton assigns to S.D. 42. The material as well as the feet of these two vessels correspond to some of the fragments from the terrace of the White Temple at Uruk (fig. 45,

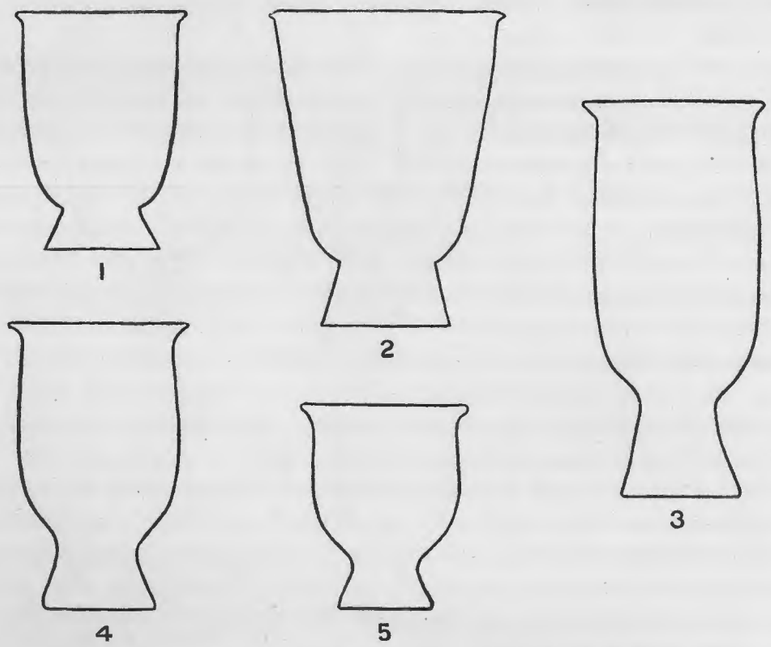

Fig. 46. 1, 2. From the great deposit in Uruk IIIa; *Kleinfunde*, pl. 21, c.b.
3-5. From Egypt; *Preh. Eg.*, pl. 40, 113.115.116.

5.6), and so do the outlines of the bodies so far as they are preserved. About the shapes of the mouths of the Uruk vases we know nothing, nor whether they also were provided with lugs. Some fragments of upper parts, mostly of obsidian, are preserved, but none of these seems to belong to the vessels under discussion. No sherds of lug-handles are among the reproductions.

The dates of the stone vases from Warka, late Uruk and Jemdet Naṣr periods, agree well with those of the Egyptian types which begin in the early Naḳāda II period. We have seen in the chapter dealing with pottery that this is the time when Jemdet Naṣr types mingled with Uruk shapes enter Egypt in force. But this is not the whole story of these vases in Egypt. There is a third form (fig. 47, 1.2) with a foot which though conical is hardly big enough to support firmly the heavy weight of the basalt vase. The body is more rounded than in the previous

[1] See *Bad. Civ.*, pl. 51, 2.

[2] *Op. cit.*, p. 49, on "Cemetery 1500-1800."

types, the mouth is narrower compared with the widest part of the vessel, and the lugs are somewhat farther down. The earliest of these vases occur in tombs together with white cross-lined pottery, and are therefore dated by Petrie to between S.D. 32 and 34; consequently they belong to the Naḳāda I period. Although comparatively rare during Naḳāda I, they have attracted considerable attention; this is probably due to their curious shape, which seems surprisingly sophisticated for their early period. No pottery form of their time can in any way be compared with them. The vase shown in fig. 47, 1 was found in a rich grave at Ab'ādiya (b 56, of S.D. 34) together with two smaller ones of the same type.[1] The tomb contained other unusual objects (*loc. cit.*). The two barrel-shaped pots with four suspension-holes are unique, and the little black vessel with the sharp ridge around the middle is not a common type at this time. The date is given by the white cross-lined vase; none of the other objects provides a safe basis for ascribing the tomb to either Naḳāda I or II. The vase shown in fig. 47, 2 was found in Naḳāda tomb 1676, S.D. 32, which contained two bodies. Their furniture consisted of three fish-tail lances, two of which are now in University College, a beautifully worked stone dagger now in the Ashmolean, and a twisted flint blade in University College. This blade is somewhat of a puzzle, for twisted ones do not normally occur before Naḳāda II. The tomb-number is clearly marked on it, but it is not mentioned in Quibell's description of the grave.[2] With a normal object this would not say much, for the descriptions in this publication are by no means complete and it is quite usual to have more pieces from a tomb than are mentioned in the description. In the case of an unusual piece it is difficult to decide whether the description of the tomb is incomplete or the number is wrong. The date is again provided by a white cross-lined pot, which together with the basalt vase (fig. 47, 2) is kept in the Ashmolean. The mace-head mentioned by Quibell as being "in front of E. shoulders" I have not been able to identify. There may have been more simple pots in either of these graves which it has not been possible to trace, as has already been explained on p. 26 above.

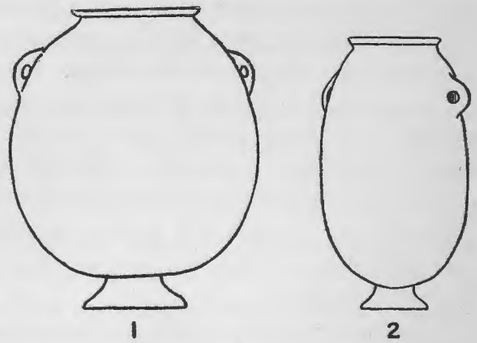

Fig. 47. Basalt vases of Naḳāda I. 1. From Ab'ādīya; *Diosp. Pa.*, pl. 9, 5.
2. From Naḳāda; *Naq. Bal.*, pl. 9, 72.

The question which arises from the occurrence of footed vases early in Naḳāda I is: how can this early date of the Egyptian stone vases be brought into line with those of similar type found during the Uruk period in Mesopotamia? There are two points to be considered. The first is, how are the cultural stages of Egypt and Mesopotamia to be correctly correlated? This has already cropped up in the course of these investigations, and will recur again later on. It can only be decided at this stage of our knowledge by considering it with each group of objects separately, and then comparing the results, since we have as yet no fixed points for the dates of the early prehistoric periods. The second problem, which has also been mentioned, is the dating of Egyptian objects within the Naḳāda I period. If the sequence dates of the tombs concerned had undergone the necessary revision this might not be such a difficult task. It can be finally

[1] *Diosp. Pa.*, pl. 5.

[2] *Naq. Bal.*, p. 29.

settled only by those stratigraphical excavations in settlements which are at present so sadly lacking in Egypt.

The beginning of the Naḳāda II period of Egypt is characterized by Jemdet Naṣr influences mixed with Uruk types. It therefore seems probable that the Uruk culture in Mesopotamia had not yet totally disappeared when the new influx made itself felt in Egypt. Thus the beginning of Naḳāda II will be assumed here to be contemporary with an early phase of Jemdet Naṣr. If this is right the period antedating Naḳāda II in Egypt must be correlated with Uruk proper. As the evidence for a period of unpainted incised ware intervening between Naḳāda I and II is too slight to be taken into account, Naḳāda I, or at least its later part, must be considered to coincide with Uruk. This implies that the influence of the first painted-vase period of Asia made itself felt in Egypt at a time when it was vanishing from Mesopotamia. As the patterns of the Naḳāda I painted ware show the strongest affinities to those of the first painted-vase culture of Iran, it is not at all unlikely that the country of origin knew little of the Uruk civilization, but went on cultivating painted pottery in the old way. When we recall that in Arpakhīya Al-'Ubaid ware was found in strata I-IV, contemporaneous with Nineveh III, which, according to Speiser, is of the Uruk age, we see that Egypt offers a perfect parallel to this late date. The time-lag is not too great, considering the distance between the countries concerned. Should further research confirm this dating, namely that Uruk is contemporaneous with Naḳāda I or the later part of this, it would help to explain a fact with which we have had to deal earlier, namely that every now and then a piece dated with certainty to Naḳāda I is of a style belonging to a later phase of development. If we could assume that the Egyptian periods lag somewhat behind the corresponding phases of Asia the problem might be solved, and the footed vases of Naḳāda I would not be out of place.

Against this solution of the problem stands the fact that some of the footed vases are associated with the beginning of Naḳāda I and not with its later part. Only two of them are from tombs dated to the second half of Naḳāda I; one of them (pl. 13, 1) is of the sub-type having larger conical feet and wider mouths.[1] We shall have to investigate all the tombs of Naḳāda I, first half, from which footed vases are known if we want to find an approximately correct solution. Fortunately there are only two more tombs to be discussed.

One tomb at Naḳāda (1661, S.D. 34)[2] of the first half of our period contained the type in question. Besides a footed basalt vase it held three cylindrical alabaster pots. Two pottery vessels were black-topped. One, B 21 M, is a sub-type dated by Petrie from our tomb, and therefore useless for these investigations. The other, B 27e, is dated S.D. "31-" (no second figure is given).[3] It is marked with an unusual sign[4] which gives no help for the dating. A rhombic slate palette,[5] the fragments of a comb with a bird top,[6] and a necklace of black painted clay beads form the rest of the outfit known to me. Since the two black-topped vases give no date, there must have been other pottery in the tomb which determined the ascription to S.D. 34; unfortunately I cannot trace any. As things stand there is nothing from the tomb to warrant the early date.

[1] The other vase was found at Badāri, grave 3823, S.D. 35-37 (*Bad. Civ.*, p. 51). This burial, judging by the rest of its contents, might equally well be dated to Naḳāda II; it had been "thoroughly ransacked."
[2] Now in Berlin, see *Die Altertümer*, pl. 20, 546.
[3] *Corpus*, pl. 4.
[4] *Naq. Bal.*, pl. 54, 275.
[5] *Corpus*, pl. 58, 90D.
[6] *Naq Bal.*, pl. 63, 65.

A tomb (M 29) containing a basalt jar with foot was excavated by Reisner at El-Masā'īd.[1] The burial lay on a tray of twigs in a rectangular pit. The only equipment was the basalt vase and an oval dish painted with a pattern in white.

With this example the description of footed vases ascribed to the first half of Naḳāda I is concluded. The problem is narrowed down to five basalt vessels found in three tombs. All of them depend for their date on white cross-lined pots. When they were discussed in the first part of this book (p. 30) it was mentioned that Petrie's narrow dating of these painted vases must be extended to include the end of Naḳāda I. Brunton even dates some of them without hesitation as late as the beginning of Naḳāda II.[2] If the white-painted pots can be dated to the second half of Naḳāda I, there is nothing against the same dating for the footed stone vessels. This would bring them into line with the other stone vases of their own or related sub-types which begin towards the end of Naḳāda I and carry on into Naḳāda II. It would also agree with the date of the ivory vases of the same shape, which first occur in S.D. 37.[3] Finally, the date would agree also with the related stone vases from Mesopotamia, from which this type cannot be dissociated. Only evidence from further excavation can give final confirmation of the later date just arrived at for these vases.

There is not much to be added to the discussion of the stone vases from Uruk and their Egyptian counterparts. None of the fragments found in the Ziggurat underneath the White Temple conveys enough of the original shape of the vases for a comparison to be based on it. None seems to belong to a cylindrical pot, though the little fragment 9988d in the first publication,[4] which may be fluted, reminds one vaguely of a fluted vase found under the Step Pyramid,[5] or of a fluted pottery cylinder found in the "tombs of the courtiers" of the First Dynasty at Abydos.[6] Petrie describes the latter as looking like "an imitation of the Egyptian alabaster cylinder jars, by some different people."[7] Another form that may be mentioned is the large rectangular trough from Uruk,[8] not certainly dated. A similar receptacle was found under the Step Pyramid,[9] a very rare shape in Egypt. An Uruk fragment of a spouted jar (undated)[10] resembles the Egyptian spouted bowls of the First Dynasty.[11] It is unnecessary to rediscuss the bird-shaped vases, since Frankfort has established their interrelations.

From Uruk we will turn to Telloh and its stone vase industry. It was mentioned on p. 103 above that de Genouillac counts the beautiful stone vases among the characteristic features of the Uruk period at Telloh. The first impression given by a study of de Genouillac's plates of stone vases is the complete difference in shape and material from those found at Uruk. Not a single footed vase, nor any of the narrow beaker shapes as found in the terrace of the White Temple, was excavated in Telloh, nor among the materials used was there any obsidian, a stone especially favoured by the vase makers of Uruk. With the single exception of a rectangular trough,[12] a completely new set of shapes confronts us here. Most characteristic

[1] Reisner, *Development of the Egyptian Tomb down to the Accession of Cheops* (1936), p. 372, fig. 9.
[2] *Bad. Civ.*, pl. 38, 16m.70k.
[3] *Preh. Eg.*, p. 40.
[4] *Warka* III, pl. 20, a.
[5] Lauer, *La Pyramide à Degrés: l'Architecture*, I, p. 65, fig. 45.
[6] Petrie, *Tombs of the Courtiers*, pls. 4, 11; 8, 10.
[7] *Op. cit.*, p. 5.
[8] *Warka* VIII, pl. 51, a.
[9] Lauer, *La Pyramide à Degrés: Compléments* (t. III), pl. 17, 13.
[10] *Kleinfunde*, pl. 30, b.
[11] *Funeral Furniture and Stone Vases*, pl. 25, 397-404.
[12] H. de Genouillac, *Fouilles de Telloh*, I, pl. 5, 3.

are pots with ovoid or hemispherical bodies, sometimes provided with flat bottoms, and having sharp ridges at shoulder height; above this the vases narrow abruptly to necks with wide, projecting rims. Some of them have four lug-handles, or have their walls perforated in four places to allow a cord to be passed through. The ridge is sometimes adorned with a row of vertical incisions. It seems probable that de Genouillac has these shapes in mind when he speaks [1] of forms inspired by copper prototypes. These characteristic vessels have no parallels among the Egyptian stone vases. It is from the open bowls that some help comes for these investigations.

The little "flower-pot," made of what de Genouillac calls "marbre tacheté gris" (fig. 48, 1), is so similar to certain Egyptian stone vessels that an independent origin seems very unlikely. It was found in a tomb classified by de Genouillac as "époque protohistorique de Warka." [2] As it is not clear whether this writer's description of the stone employed for the vase has a petrological background, or is only meant to give a general idea of the material, it is impossible to decide whether the vase was made of an Egyptian stone or, if not, what the source of the raw material was. The Egyptian counterparts (fig. 48, 2.4) also are made of spotted stones: granite, syenite, porphyry, etc., very similar in appearance to the bowl from Telloh (fig. 48, 1). The earliest known Egyptian examples belong to the well-developed Naḳāda II period. A small specimen was found in tomb 1836 at Naḳāda; it is especially interesting because the cylinder-seal mentioned above, pp. 47, 48, comes from the same tomb. As this seal is in all probability an importation from Mesopotamia the connection is emphasized by the little stone pot, which is of a type found also in a grave of the Jemdet Naṣr period at Telloh.

Most of the stone vessels of this type, however, have been found in prehistoric Lower Egypt. Thirteen of them were excavated at Gerzeh, others were found at Abuṣīr el-Meleḳ. At Gerzeh they are dated between S.D. 52 and 65, and are of granite and serpentine; [3] the pieces from Abuṣīr el-Meleḳ are likewise of granite, and other black and white materials not specified in the publication.[4] Petrie dates this type to Middle Prehistoric; those splaying outward, of alabaster and limestone, are later.[5] This is Reisner's type PD-X, of which he says: [6] "As stated in the preceding paragraph, I know of only two bowls, both of them small cups or saucers, previous to the Late Predynastic Period, and both of these are round-bottomed shapes. In the Late Predynastic Period, a few crude flat-bottomed cups or saucers with plain rims have been recorded of about the same technique and finish as the corresponding round-bottomed saucers. The fine cleanly cut bowls with flat bottoms do not appear until the very end of the Late Predynastic Period. It may be doubted whether any example occurs previous to Dynasty O. All these early fine bowls have the straight-sided conical form with plain rim." It is difficult to accept this dating; Reisner ignores the earlier one assigned by Wainwright, and he seems to have overlooked the little pot from Naḳāda. The type, however, persists into dynastic times: it occurs in the tombs of the earliest dynasties (fig. 48, 4), and has also been found under the Step Pyramid.[7]

[1] *Op. cit.*, p. 51.

[2] *Op. cit.*, pp. 66 f. The vessel is from tomb VI; in the description of the stone vases on p. 52 it is erroneously stated to come from tomb V.

[3] G. Wainwright, in Petrie and others, *The Labyrinth, Gerzeh and Mazghuneh*, p. 21.

[4] G. Möller and A. Scharff, *Die archaeologischen Ergebnisse d. vorgeschichtlichen Gräberfeldes v. Abusir el-Meleq*, pl. 25, 221-223.

[5] *Preh. Eg.*, p. 35 (86). [6] *Mycerinus*, p. 137. [7] Lauer, *op. cit.*, III, pl. 13, 2.

The related form in alabaster or limestone, mentioned by Petrie as being later than that of hard stones, was also unearthed from a tomb at Telloh.[1]

In Mesopotamia the vase makers were induced by the softness of these materials to decorate their products with incised patterns or pictures, as in the case of the ceremonial footed vessel

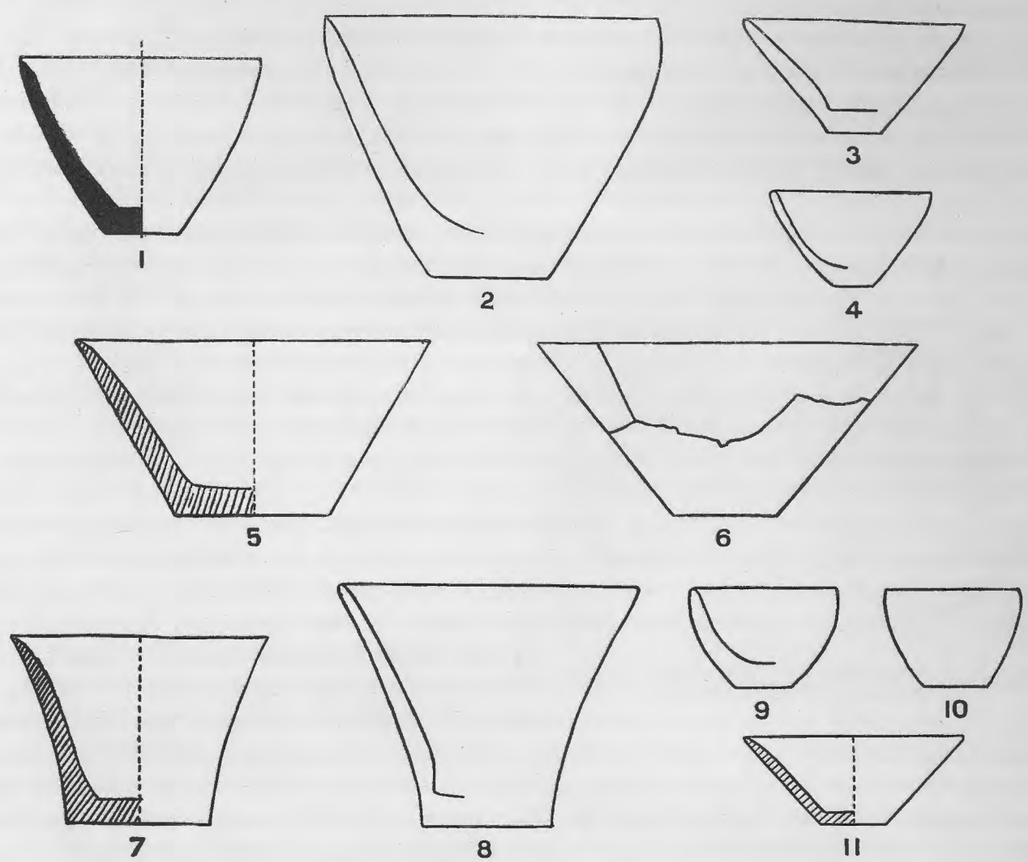

Fig. 48. 1. From Telloh; *Fouilles de Telloh*, I, pl. 5, 2, *a* and pl. IX; p. 52 (TG 4385) "marbre tacheté gris." 2, 4, 6, 8, 10. From Egypt; (2) Petrie, *Gizeh and Rifeh*, pl. 6D, 124, syenite; (4) Petrie, *Funeral Furniture and Stone Vases*, pl. 20, 311, black and white porphyry; (6) De Morgan, *Préhistoire orientale*, p. 188, fig. 230 "pierre dure"; (8) Petrie, *Abydos*, I, pl. 44, tomb M 17, breccia; (10) Petrie, *Funeral Furniture and Stone Vases*, pl. 19, 283, alabaster. 3, 9. From Jemdet Naṣr; *Jemdet Nasr*, pl. 67, 36, gray granite, and 40, calcite. 5, 7, 11. From Fara; E. Heinrich, *Fara*, p. 22, fig. 21, F2490. F2495; p. 23, fig. 22, F2505.

discussed above, p. 107. This is a mode of decoration rarely practised in Egypt. The Egyptian artists aimed at a completely balanced shape, which they knew how to achieve in spite of the difficulties which the material might offer, and at showing off by a high polish the beauty of the stones employed. But just at the time when the saucers and cups mentioned above began to be produced in the Nile Valley some sculptured limestone vases were made there too. One of the

[1] De Genouillac, *op cit.*, p. 52, pl. 7, 4a: "Marbre blanc beige (Tombe au vase de cuivre à fard)."

best-known examples is the cylindrical vase from Hierakonpolis showing in relief Horus-falcons on crescent moons, a large bow, scorpions, and some birds.[1]

Not all the stone vases excavated at Telloh are reproduced in the publication. It is impossible to say whether there were others which show affinities to Egyptian stone vessels, for the inventory does not help in this respect.

Types of stone bowls similar to those from Telloh were found at Fara (fig. 48, 5.7.11). The jars with the keeled shoulders are familiar there, and also the flower-pots called by Heinrich "Steinnäpfe, aussen kegelförmig" (cf. the Egyptian vase, fig. 48, 8).[2] Both the types from Telloh discussed above occur here. The hard stones were not identified by an expert, and many of them are not named; basalt and serpentine are mentioned. Limestone seems to have been the commonest material.

At Jemdet Naṣr very few stone vases were excavated; among them was a flower-pot (fig. 48, 3), stated to be of granite. Another cup (fig. 48, 9) with the slightly curved-in mouth so characteristic of Egyptian vessels (cf. fig. 48, 10) of the early dynasties and the Old Kingdom, is made of calcite.[3] These two pots are the only ones among the types from Jemdet Naṣr which survive into the time of Cemetery A at Kish;[4] this demonstrates the longevity of these types for Mesopotamia also. The most interesting of the stone vases from Jemdet Naṣr is the limestone pot (fig. 49, 1) with the four horizontally pierced lug-handles (Gn 3367). It certainly resembles the "shouldered" stone vases (cf. fig. 49, 2) so familiar from Egyptian tombs of Naḳāda II. But quite apart from the fact that the Egyptian vases never have more than two horizontally pierced lugs, the Jemdet Naṣr piece is a unique specimen, so that more material must come from Mesopotamia before any conclusion can be arrived at. This is the more to be regretted since the four-lugged vessel from Jemdet Naṣr is the only one which recalls a really common type from Naḳāda II. All the other stone vases of shapes found in Mesopotamia and Assyria either are rare from Naḳāda II, or do not occur in Egypt at all before the rise of the dynasties, after which they are frequent until the Third Dynasty. Some of them are still in use later in the Old Kingdom. The period of the early dynasties is, as was stated above, the zenith of Egyptian stone vase manufacture; after the Third Dynasty the number of hard stone vessels diminishes. The date of the Mesopotamian stone vessels from Telloh, Fara and Jemdet Naṣr agrees with this later age. They are of the Jemdet Naṣr period; some of them persist into early dynastic times. This is proved not only by the persistence of the types from the excavations at Jemdet Naṣr itself, but also by their occurrence among the material from the "Late Cemetery" at Al-'Ubaid. There they are dated between the First and Third Dynasties of Ur.[5] It is interesting to note that among the stone vessels from that cemetery cylindrical vases were found, while the vase with the keeled shoulder seems to have died out. The cylindrical vases[1] are of a shape which in Egypt is characteristic of the first three dynasties, and this agrees well with the date the cups and bowls suggest. Cylindrical vases, so characteristic of Egypt from a very early age, do not seem to appear in Mesopotamia before the beginning of the dynasties.

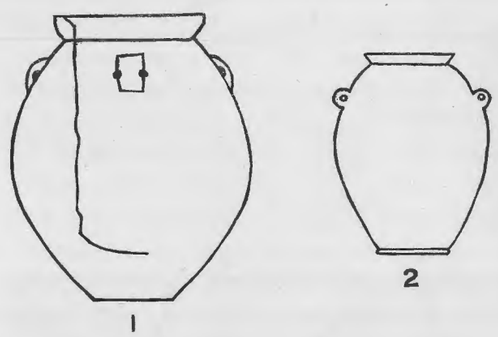

Fig. 49. 1. From Jemdet Naṣr; *Jemdet Nasr*, pl. 67, 35.
2. From Egypt; *Preh. Eg.*, pl. 39, 70.

[1] Quibell, *Hierakonpolis*, I, pl. 19, 1.
[2] E. Heinrich, *Fara*, p. 23; pl. 9, i (F 317).
[3] *Jemdet Nasr*, p. 279; pl. 67, 36.40.
[4] *Op. cit.*, p. 279.
[5] *Al-'Ubaid*, pl. 61, 62.

Where all these types of stone vases originated seems difficult to decide at present. The cylindrical vases are probably Egyptian from the start, since they occur there in stone, clay and ivory. They may have been ivory shapes from the first, for this is their material in Badārian times.[2] The country of origin of the bowls and dishes is more difficult to conjecture. Reisner seems to assume that they were foreign importations in Egypt when he says:[3] "The flat-bottomed dishes and bowls form the most characteristic feature of the corpus of early dynastic stone vessels and are even more numerous than the cylindrical jars. The new fine forms came in during Dynasty O as straight-sided bowls with plain rims or mouths. The forms with internal rim[4] and those with sharply contracted mouth were probably introduced after the time of Menes, because no example of either is recorded from the tomb of Menes."

A word must be added about the technique of stone vase manufacture. The excavators in Mesopotamia remark on the clumsiness of some of the vessels or the unnecessary thickness of their walls.[5] Sometimes the interior is not hollowed out carefully, following the shape of the vase, a conical hole, sometimes very shallow, being all that the vase-maker found necessary. This gives the impression that the vessel is not really finished; but comparison with the Egyptian material where the same feature occurs[6] suggests that it is a difference in quality and not a stage in the production of the vessels. They may well have been a cheaper variety to suit humbler customers. In Egypt they come from tombs, where they may have been substitutes. At Jemdet Naṣr the stone vases were found in a building that had been sacked, and it seems not unlikely that the cheaper vessels were left behind.

Discussion of the stone vases of Mesopotamia has taught us but little about the early connections between that country and Egypt. The footed vases from Uruk and those from Naḳāda I and II are of interest as helping to explain the early occurrence of a type which is so startling in Egypt. Most of the current forms of prehistoric Egyptian stone vases, however, have no counterparts in Western Asia. Only during the first three Egyptian dynasties and the immediately preceding period is it possible to distinguish interrelations. At those times the connections between Egypt and Asia must have been especially close, as we know from previous investigations. Discussion of the stone vases is particularly hampered by the lack of special studies on the subject on the Asiatic side and the absence of petrological evidence in many cases: only when we know the sources of the raw materials, especially the hard rocks, used in the manufacture of the vases shall we be in a position to estimate with confidence the extent of the trade in this commodity which must have taken place.

It is difficult to fit Arpakhīya into the picture.[7] The types of stone vases found there at an

[1] *Op. cit.*, pl. 61, 2.3.
[2] *Bad. Civ.*, pl. 23, 5-8.
[3] *Mycerinus*, p. 148.
[4] [See above, p. 104.]
[5] *Jemdet Nasr*, p. 279.
[6] Petrie, *Funeral Furniture and Stone Vases*, pls. 9, 10, 15.
[7] It is worth noting that a certain characteristic pottery type also is dated much earlier at Arpakhīya than anywhere else. The double-mouthed vessel decorated with knobs on its upper part is ascribed there to the end of Al-'Ubaid, while it is proved to be of the end of Jemdet Naṣr at Sialk, or early dynastic in other places. See *Sialk*, p. 84 f.

early period belong in Egypt to the time of the first dynasties. The form with the shoulder keel has been noticed at Arpakhīya and Gawra only; it does not occur even at Samarra, which is much poorer than Arpakhīya in stone vessels, only four, of a striped alabaster, having been found there. The origin of this stone has not been traced, but it may come from Iran, since Ghirshman mentions [1] quarries in the region of Yezd where a translucent, veined alabaster, "soft and easy to work," is found. Striped alabaster occurs, of course, in Egypt also, and was used there at least as early as Naḳāda II. The Samarra vessels are clumsy and rather badly made. Herzfeld says of them: [2] "Alabastrons are to be found in all prehistoric sites in fairly large numbers. The shape of the pieces from Samarra is extraordinarily primitive, and is very near to the still older ones from Persepolis, as well as to the oldest from Egypt. In Sistan related, somewhat finer products are frequent. A piece very nearly related to those from Samarra is in my possession from Istakhr. The closest analogies are perhaps those from Tepe 'Alîâbâd, M.D.P., VII,[3] figs. 288-293." As this passage occurs in the earlier publication of the Samarra pottery, perhaps not much importance should be attached to it. When he wrote it Herzfeld dated the cemetery of Samarra to about the Jemdet Naṣr epoch, but after making another excavation there he corrected his first suggestion and placed the finds much earlier.[4] The copper from the tombs mentioned in the first publication was stated to be an intrusion from Arabic houses which overlay the prehistoric cemetery. While lapis lazuli is mentioned in *Die vorgeschichtlichen Töpfereien*, p. 4, as a material of beads found in tomb A, alte Inventarnummer 335, its presence is denied in *Geschichte und Vorgeschichte*, also in Herzfeld's latest book *Iran in the Ancient East*. It seems unsafe, therefore, to base any conclusions on the Samarra material until the publication of the second excavation. Herzfeld's drawings and photographs of the stone vases hardly bear out his assertion as to their similarity to "earliest Egyptian" shapes. One of the pots is cylindrical, but is so clumsy that it can hardly be safely compared to the early Egyptian forms. The other three resemble in a general way vases of the early dynasties like fig. 48, 10, or of Jemdet Naṣr like fig. 48, 9. The stone vessel from Istakhr does not seem to be published, and those from Tepe 'Alîâbâd [5] belong to the same set of types as those from Fara and Jemdet Naṣr. The painted pottery found together with them dates them with certainty to the second painted-vase period.

The stone vessels from Persepolis mentioned by Herzfeld are doubtless the fragments published in *Iranische Denkmäler*.[6] The drawings hardly convey any exact idea of the shapes; the pots must have been in a very bad state of preservation when reproduced. In addition to these fragments two stone vases better preserved were unearthed at Persepolis. One is an alabaster beaker, the bottom of which is slightly hollowed out to form an annular base. The lip, now much broken, protruded but little. The other vase is of a hard, black, unidentified rock, and though having a rounded bottom and no sign of a foot somewhat resembles the footed vessels of Uruk and early Egypt. The dating of these vases also offers some difficulties. Herzfeld is of opinion that the culture of Persepolis excavated by him is the earliest yet known in Iran; Ghirshman, however, thinks the painted pottery of Persepolis—from which the stone vases cannot be separated—is contemporary with Susa I, Sialk III, 6-7, and Hissar Ic, which would

[1] *Sialk*, pp. 54 f.
[2] E. Herzfeld, *Die vorgeschichtlichen Töpfereien von Samarra*, in *Die Ausgrabungen von Samarra*, V (1930), p. 3.
[3] [=*Délég.*, VIII (*sic*)—E. J. B.]
[4] *Geschichte und Vorgeschichte. Archaeologische Mitteilungen aus Iran*, V (1933), p. 29.
[5] *Délég.*, VIII, p. 143.
[6] *Reihe* I. A. *Persepolis*, pl. 23.

correspond to the end of the Uruk and the beginning of the Jemdet Naṣr periods.[1] The work at Persepolis was carried on by E. Schmidt after Herzfeld left; no safe conclusions can be drawn before the publication of his results.[2]

With Ghirshman's excavations at Sialk we are on safer ground. In his lowest stratum, I, only one fragment of a stone vase was found, belonging to the end of the period represented by the stratum. It is of a black stone.[3] The drawing tells us nothing about the vessel's shape, but its surface is ribbed ("côtelé"). Some ribbed stone vases are known from prehistoric Egypt,[4] but one fragment of a pot of unknown shape is not much to go upon. More fragments were discovered from the second period. They are of a "hard, black" stone; one of them was adorned with a pattern of diagonal lines in relief. Another fragment, from a vase about 14 cm. high, was furnished with three grooves for suspension. Fragments of two bowls, one black, one white, show forms similar to those from Fara and Jemdet Naṣr.[5] There are four stone vessels of the third period. One (pl. 13, 6) is an alabaster (?) beaker of a shape rare in Western Asia: it is slender, with slightly swelling sides and splayed mouth. The nearest parallel known seems to be from Naḳāda (tomb 231, no S.D.; my pl. 13, 4): it is of white translucent alabaster, slender, with slightly swelling sides and splayed mouth. The shape is unique in Egypt. Five more stone vessels were found in the same Naḳāda tomb. Four of these are in the Berlin Egyptological Museum; [6] three are cylindrical beakers, the fourth is a saucer with rounded bottom. The beaker shown pl. 13, 6 is in the Ashmolean Museum (No. 95.198) together with a basalt vase (No. 95.178), shouldered with conical foot, not quite of the usual shape. An ivory vase (U.C. 5204), also footed, and some ivory fragments (U.C. 5205-6) are in the collection of University College, London. No pottery from the grave is known; perhaps there was none. Petrie gave the grave S.D. 61, which falls in Naḳāda II.

Of the three other stone vases from Sialk III two are fragmentary. One of these (fig. 50, 1) is like an early dynastic basin found at Abydos (fig. 50, 2). The two others, which are variants of one type, are somewhat individualistic, and are not similar to any other stone vessel. Thus from four vases out of Sialk III two are of types which were made in Egypt also.

In Sialk IV alabaster was used for tiny bowls and bottles such as in Egypt were more often made of ivory, though in not quite the same shapes. They were probably for toilet purposes. The rectangular trays also found in IV served a similar use. Ghirshman compares them to rectangular Egyptian slate palettes, which belong to the very end of predynastic and the beginning of dynastic times. A heavy mortar (fig. 50, 3) is like an Egyptian one (fig. 50, 4) found in Naḳāda tomb 1263, of S.D. 63; Petrie published it as a stone vase, but there can be little doubt as to its purpose.[7] It is interesting to note that slate, which became fashionable in Egypt in protodynastic times, was used for vessels during period IV at Sialk. Some of the Sialk bowls made from it are so similar in shape to Egyptian vases that they might come from the same workshop.

[1] *Sialk*, pp. 84, 96.
[2] A short note appeared in *American Journal of Semitic Languages and Literatures*, 55, p. 108. Schmidt found a stratum still earlier than that discovered by Herzfeld.
[3] *Sialk*, pl. 53, 15; p. 131.
[4] See e.g. Möller and Scharff, *op. cit.*, pls. 23, 205; 27, 239.
[5] *Sialk*, pl. 53, 13.12.2.6.
[6] *Die Altertümer*, I, pl. 20, 552 (p. 202); pl. 23, 553 (p. 202).583 (p. 207).648 (p. 223).
[7] The mortar is in the University College collection (U.C. 4405). Two flint knives on blade, one twisted (U.C. 4406), the other in the Berlin Museum (Berlin 12907), are also known from this tomb.

To establish their relationship, however, would require careful study of the raw material of the pots and, if possible, collation of the Iranian and Egyptian pieces. These bowls have flat bottoms and elegantly curved sides narrowing to form the mouths (fig. 50, 5.6). Another type from Sialk IV (fig. 50, 7) has been discussed when dealing with Jemdet Naṣr (fig. 48, 9), Fara, and Arpakhīya (fig. 43, 5). But at Sialk the chronological difficulties are not so great as at Arpakhīya. Sialk IV corresponds in time to Uruk IV, Jemdet Naṣr, and the beginning of the archaic Mesopotamian dynasties, which would mean for Egypt Naḳāda II and the beginning of the dynasties with an uncertain downward limit. The end of Sialk III—Sialk III 7b—corresponds to Warka V or the end of the Uruk period. In III 7b was found a fragment of a basin (fig. 50, 1), the Egyptian counterpart of which (Fig. 50, 2) is from the beginning of the First Dynasty, and is therefore later, but not so much as to exclude any connection. The fine Sialk beaker shown pl. 13, 6 is of III 5, the corresponding Egyptian piece shown pl. 13, 4 is of S.D. 61; again the vessel from Sialk is somewhat earlier.

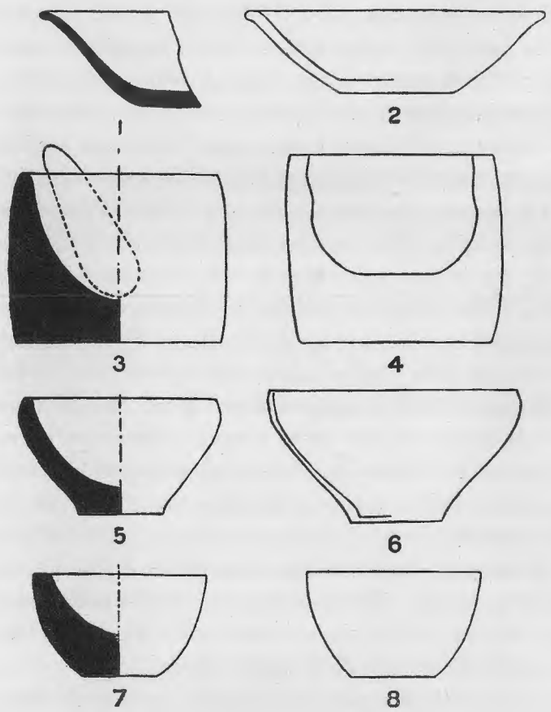

Fig. 50. 1, 3, 5, 7. From Sialk. 1. From Sialk III, 7; *Sialk*, pl. 85, S 1644. 3, 5, 7. From Sialk IV, 1 and 2; *Sialk*, pl. 91, S3.S11.S6. 2, 4, 6, 8. From Egypt. 2. *Royal Tombs*, II, pl. 51c, T 237. 4. *Preh. Eg.*, pl. 41, 158. 6. *Abydos*, I, pl. 43, 3. 8. Petrie and others, *Tarkhan I and Memphis V*, pl. 35, 19h.

The material from Susa is not yet of much help in this investigation, for the stone vases have not been systematically published. Only scattered references are to be found in the various publications of de Morgan and de Mecquenem. So much seems clear, however, that in Susa I stone vessels are rare. Only small containers were found, horn-shaped, and ending in a knob; cosmetic colour was kept in them.[1] In the higher strata of Susa stone vases were more abundant. De Morgan, who knew the Egyptian as well as the Susian material, finds a close relationship between the two. Some of the bowls published from the Elamite metropolis seem to be of the types which have been discussed above; but since the stratum from which these vases come is unknown, and no detailed description of these objects is available, not much use can be made of them.

No stone vases having been found at Tepe Giyān or in the lower strata of Tepe Hissar this short survey of Iranian stone vessels is at an end. One thing stands out clearly: stone vases were used much less in prehistoric Iran than in contemporary Egypt. The harder and more precious stones were in no case indigenous in these highlands, but had to be imported from afar.

[1] De Morgan, *Préhistoire orientale*, II, pp. 273 f., fig. 307.

Many of the types used were familiar to Egypt also. This applies particularly to the new group of shapes introduced into Egypt in protodynastic times. These vessels seem to appear earlier in Western Asia than in Egypt; in view of the difficulties in correlating the Egyptian with the Asiatic phases of culture, more evidence is needed on this point. Of the stone vases characteristic of Naḳāda II, the squat ones, the barrel-shaped, etc., there is no sign in Iran. Those vessels with which Frankfort [1] and Scharff [2] have dealt, the multiple and the animal- or bird-shaped pots, are not discussed again here, for their connections have been established.

With this chapter the investigation into the foreign sources of Egyptian origins must be broken off. Stone vases in Mesopotamia and Iran have not yet attracted the interest and detailed study which would make them a real link in the complicated machinery of cultural origins and interrelations. The painted pottery has so far absorbed all the attention of students of the Western Asiatic civilizations. Yet it is only by investigating all the remains of those far-away cultures —remains which form at best only a small fraction of the original equipment—that we can hope to reconstruct something perhaps resembling the true historical conditions. It is therefore too early at this stage of my investigations to draw any definite conclusions. Interrelation between Egypt and certain centres of civilization in Western Asia must have existed at least since Naḳāda I times. Material and with them spiritual possessions found their way from Asia to Egypt, and perhaps were exchanged for something Egypt had to offer. Beyond this general and by no means new statement I do not wish to go. Only when more work has been done on the subject can some details of the picture be filled in.

[1] *Mesopotamia, Syria and Egypt and their Earliest Interrelations*, pl. 9.
[2] Möller and Scharff, *op. cit.*, pl. 24.

INDEX

I. GENERAL

A

Ab'ādīya, 23, 27 n. 2, 31 f., 109
Abusīr el-Meleḳ, 14, 41, 44, 93
Abydos, 7, 9, 13, 43 n. 3, 45-7, 62, 75, 77, 84 n. 3, 86 n. 6, 106, 117
Abyssinia, 75
Adametz, L., 24
Aden (Straits of), 24, 78
Adze, 43; *see also* Copper
Agriculture, 23, 52
'Aḥa, 13
Ahiram, 59
Akkad, 69
Aloe, 75, 81
Al-'Ubaid, 39, 53 f., 56 f., 68, 70, 97, 103, 106, 110, 114, 115 n. 7
Amarna, 7, 59
Amer, Mustafa, 21, 29 n. 5, 105 n. 1
Amulets, 47, 62; amulet with human head, 35, 47
Amūn, 5
Anatolia, 53, 68
Animal burials, 23, 50
Animal worship, 23, 36, 46, 50
Anubis, 7
Arkell, Anthony, 81; W. J., 19
Armant, 3, 16, 27, 40, 43, 89, 95, 97, 101 f.
Arne, T. J., viii.
Arpakhīya, 56 f., 103-6, 110, 115 f., 118
Assyria, 53, 69, 75, 103, 106, 114
Asyūṭ, 10 f., 25, 49; *see also* Siut
Atérian, 19
Axe, 21 f., 25, 27, 40, 43; *see also* Copper, Flint
Ayrton, E. R., 29, 34 n. 7, 62

B

Babylon, 69, 83
Badāri, 17, 20-2, 25, 29 f., 32, 40, 45, 57 f., 65 f., 80, 84, 89-91, 95 f., 99, 102, 106 n. 3, 110 n. 1
Ballāṣ, 1, 14, 26 f., 43, 50, 53, 99
Barsanti, A., 7
Baskets, 57-9
Bates, O., 45
Beads, 42, 48
Bearded man idol, 34
Berber Libyan, 48
Bēt Khallāf, 87 n. 1
Billington, D., 92 n. 1
Bissing, F. W. v., 8 n. 7, 10
Blackman, W., 58
Borchardt, L., 5
Bovier-Lapierre, P., 25
Breasted, J. H., 10
Bricks, 27, 37, 50 f.
Brunton, G., 9 n. 2, 20 f., 23 f., 29 n. 1, 30, 35, 66 f., 90, 95, 99, 102, 108
Busiris, 4

C

Capart, J., 31, 36
Capsian, 18
Castor oil, 23
Caton-Thompson, G., 1, 18, 21 f., 34, 37, 44, 54, 89, 95
Cattle, 23, 50, 52
Celt, polished, 20 f.
Celtoid, 20
Clay figure, 36
Cohen, W., 86
Copper, 22, 24, 42, 44, 50 f.; adze, 42; axe, 42; pin, 27, 34, 42, 93
Cow-goddess; *see* Fertility-goddess
Crete, 44 f., 47, 51, 53
Crocodiles, 83 f.
Cusae, 10 n. 6
Cylinder-seals, 47 f., 60-2

D

Daressy, G., 7
Date-palm, 75
Delta, 2-4, 10-14, 18, 24, 37, 44, 47, 50, 72, 89
Demons, 80
"Den" (king), 47, 62
Dēr el-Baḥri, 60
Dēr Tāsa, 20 f., 25, 29
Desiccation, 3, 19, 44
Diospolis Parva, 1, 25 f., 29-31, 33, 36, 42-4, 61, 67, 74, 82 f., 93, 95, 106 n. 3, 107
Djoser, 6, 8-10, 45
Double axe, 74
Dussaud, H., 59-61, 63, 67

E

Elam, 39, 83
El-'Amrah, 41, 43, 62, 86 n. 6
Elephantine, 10 f.
Elephants, 82
Eliot, H. W., 95 n. 5
El-Maḥāsna, 29, 34, 37, 73, 87 n. 1
Emblems, 11-13
Emery, W. B., 34, 61
Epsilon-sign, 72, 81
Erman-Ranke, 84 n. 2
Esna, 19
Ethiopia, 48
Evans, Sir Arthur, 44, n. 2

F

Falkenstein, A., 60, 63 n. 1, 67
Fan-shaped tree, 75
Fara, 114, 116 f.
Faras, 102
Fayyūm, 14, 16, 25, 28, 38, 44 f., 49, 51; industry, 25; technique, 39; types, 27
Fechheimer, H., 81 n. 2
Fertility-goddess, 31, 36, 46, 50, 81
Fibres, 23
Figures of women, 23
Flint: arrow-heads, 22, 28, 39; arrow-heads, chisel-ended, 39, 42; axes, 16, 20, 27, 39; axes polished and flaked, 16, 28; bifacial knives, 16; bifacially worked implements, 38 f., 49; blade knives, 39; blade technique, 39, 49; burins or gravers, 39; celtiforms, 28; daggers, 28; fish-tail, 16, 28; hoe-shaped, 28; leaf-shaped points, 28; mines, 17, 28, 39; planes, 28; ripple flaked, 16, 39; scrapers, 22, 39; sickle blade, 22, 28, 39, 42; spear-head, 16; twisted blade, 39, 99, 117 n. 7
Frankfort, H., 48, 52 f., 60, 72 n. 1, 99, 119
Frontier between Upper and Lower Egypt, 10, 49

G

Gabra, S., 20 n. 3
Gadd, C. J., 83 n. 4
Gardiner, A. H., 10 n. 2, 36 n. 4
Gardner, E. W., 18, 34 n. 5, 44
Garstang, J., 37
Gautier, E., 75
Geb, 6
Genouillac, H. de, 103, 113
Gerza, 14, 41, 44, 47
Ghirshman, R., 59, 116 f.
Gīza, 8
Goat, 23, 63, 77, 81
Gods, animal-headed, 80
Gold, 42
Götterneuheit, Rede der, 6
Grain, 23, 49 f., 78
Grave, 26, 37, 45
Green, F. W., 18 n. 1, 82 n. 1, 107 n. 5
Griffith, F. Ll., 101 f.
Gunn, B., 7 n. 2, 8, 45, 83 n. 4

H

Hall, H. R., 56
Haller, A. v., 90, 93
Hamites, 24 n. 2, 30, 39, 78
Hamitic languages, 48, 50, 78
Hammāmīya, 1, 17, 20, 22-4, 33, 37, 40, 54, 67, 80, 89, 95-7, 108
Haraga, 14, 44
Harpoon, 12, 27, 72, 83 f.
Hathor, 31, 62, 93
Ḥatshepsut, 60
Hawkes, C. F. C., 14, 23 n. 3
Heinrich, E., 106
Heliopolis, 3-10, 18, 51
Helwān, 19
Ḥemaka, 34, 62, 85
Ḥeptanomis, 10
Hermonthis, 7
Hertz, Amalie, 14
Herzfeld, E., 59, 63 f., 66 f., 72, 74 f., 83, 88, 116 f.
Hierakonpolis, 9, 13 n. 1, 18, 19, 22, 45, 47, 82 f., 107, 114
Hilzheimer, M., 24, 30
Hippopotamus, 30, 33-5, 63 n. 2, 65, 84
Ḥor-Aḥa, 61 f., 102
Horn, 34
Hornblower, G. D., 36
Horn vase, 93
Horus, 31, 47, 51; falcon of, 27, 47, 114
House, 43
Hut circle, 17, 37, 54, 95
Hu, 31, 36
Huzayyin, S. A., 16, 27, 40

I

Idol, bearded man, 35
Imḥōtep, 8, 10
India, 53
Iran, 52, 54-6, 59, 63, 65, 67 f., 70, 72-5, 77 f., 88 f., 102 f., 110, 116, 118 f.
Iranian Highlands, 53, 83
Iraq, 52, 72-4, 77 f., 95 f.
Irrigation, 28, 46
Istakhr, 116
Ivory, 22-4, 29, 34-6, 47 f., 61, 99, 101, 115; tusks, 35 f.

J

Jemdet Naṣr, 48, 53 f., 73 f., 76, 79, 83, 88 f., 91, 93, 95 f., 103 f., 107 f., 110, 114-18
Jéquier, G., 47
Jordan, H., 106
Junker, H., 8, 9 n. 1, 14, 16, 18, 37 n. 3, 89

K

Ka (king), 75 f.
Kagemni, 8
Kantor, H. J., 42, 89, 91, 94 f.
Ḳāw, 20
Kees, H., 3 n. 3, 7 n. 3, 10, 47, 84
Kharga Oasis, 18, 28
Khazīna, 75
Kish, 114
Klebs, L., 3 n. 3
Koptos, 1, 9, 25 f., 31, 36, 44, 46, 50, 84
Kudu, 75
Kuentz, C., 7 n. 1

L

Lampre, G., 75
Lapis-lazuli, 42
Lauer, J. P., 102 n. 2
Leather work, 57
Lenzen, H., 107 n. 1
Libya, 38
Libyan Desert, 25, 38
Libyans, 39, 49
Loat, W. L. S., 29, 34 n. 7, 62
Loom, 30
Loret, V., 81
Lucas, A., 17, 21, 93, 106

M

Ma'ādi, 14, 21, 29, 42, 44-6, 51, 105
Mace, A. C., 41, 43 n. 3, 86 n. 6
Mace-head: disk-shaped, 34, 43; pear-shaped, 18, 27, 34, 43
Mackay, E., 6 n. 3, 74
Mallowan, M. E. L., 103-5
Maltese cross, 65, 67
Margoliouth, D. S., 5 n. 1
Mariette, A., 8
Marshall, Sir John, 56, 75 n. 1
Mediterranean, 50, 52
Mēdūm, 8, 81
Memphis, 5, 13, 44
Menes, 3-5, 10, 12 f., 18, 106, 115
Menghin, O., 14, 21, 29 n. 5, 40, 105 n. 1
Men in file motif, 64 f.
Mecquenem, R. de, 95, 118
Mereruka, 8
Merimda-Beni-Salāma, 1, 14, 16-18, 21, 37 f., 40 n. 4, 43, 46, 51, 89, 95
Merneith, 47
Mesopotamia, 48-50, 52-6, 62, 68, 70, 75, 79, 102 f., 109 f., 113-15, 119
Meṭen, 11
Metope pattern, 73, 76
Meyer, Eduard, 5
Midgley, T., 23
Min, 33, 36 f., 46, 51, 84
Möller, G., 117 n. 4, 119 n. 2
Moeris, Lake, 3
Mohenjo-Daro, 56
Mond, Sir Robert, 32 n. 3
Morgan, J. de, 63, 74 n. 2, 86 n. 6, 118
Mortar, 117
Moussian; *see* Musyān
Murray, M., 8
Mustagidda, 20, 29 n. 1, 80, 87, 89, 91, 95
Musyān, 53, 72, 75, 82 n. 6
Myers, O., 3, 32 n. 3, 40, 89, 101
Myres, Sir John L., 28

N

Naga ed-Dēr, 62
Naḳāda, 1 f., 9, 14, 16 n. 1, 23, 26, 28 f., 32 n. 1, 35 f., 40-2, 43 n. 1, 48, 50, 53 f., 57, 63, 67 f., 73 f., 76, 81, 83, 93, 97, 99-102, 106, 109 f., 117
Naḳāda Town, 16, 27, 37
Narmer, 47, 102
Naville, E., 36 n. 8, 81
Neferirkarēʿ, 8
Neïth, 13, 33, 46 f., 51, 82
Neith-ḥetep, 47
Neugebauer, O., 5 f., 10
Newberry, P. E., 10-13, 72
Neweserrēʿ, 11
Nilometer, 6
Nineveh, 96 f., 103, 110
Nofret, wife of Raʿḥotep, 81 n. 2
Nomes, 11 f.; ensigns, 11-13, 72; lists, 11
North Africa, 38, 40, 48 f., 70
North Town, 27
Nubet, 27, 29, 31, 43 f., 46 f., 50
Nubia, 25, 100-2
Nuzi, 95 n. 5, 96, 97 n. 3

O

On, 6
Osiris, 4 f., 6 n. 4, 7, 51

P

Palermo Stone, 8, 10 f., 13
Palestine, 22, 41, 42 n. 1, 44, 49, 51, 95
Palette, 21 f., 38, 47
Pan-grave, 100
Pentagram, 74
Pepi I, 7
Peribsen (king), 86
Persepolis, 54 f., 63, 65-7, 69 f., 72 n. 2, 78 n. 2, 116 f.
Persia, 24, 53
Persian Gulf, 53
Petrie, Sir W. M. Flinders, 1 f., 6 f., 8 n. 2, 9, 13 n. 4, 14, 17, 25-7, 29 f., 32-7, 40 f., 42 n. 1, 43 f., 46, 53 f., 62, 67, 75, 82, 84 n. 5, 85 n. 2, 86 f., 89, 91, 93 f., 99 f., 104, 106, 109, 113, 115 n. 6
Phoenician alphabet, 60, 63 n. 1
Phoenix palm, 75
Pond motif, 65-7
Pottery: bell pot (Glockentopf), 93, 95 f., 98; black-incised, 17, 21, 33, 54, 89, 100; black-incised beaker, 21, 33, 48; black-polished, 31; black-topped, 17, 21 f., 31, 33, 38, 68, 99, 110; brown, 22; burnished patterns, 22; cord patterns, 98 f.;

decorated, 11 f., 14, 17, 24, 27, 29 f., 32 f., 38, 46, 52, 76, 81 f., 86, 88-90; decorated in relief, 31, 33; decorated with finger-tip impressions, 97; herring-bone, 17 f., 54, 89, 95-8; incised, 17, 54, 89-100; libation vessel, 31 f.; loop-handled, 93-6, 98; marks, 22, 33, 74; polished red, 17, 21 f., 68, 98 f.; polished red white incised, 34; rippled, 20-2, 25, 101 f.; rough, 17, 33, 93, 98; slip, 17, 54; spouted jar, 91, 93, 95 f., 98; stands, 99; triangular lug-handled with incised band, 89-91, 96, 98; wavy-handled, viii, 14, 40, 44; wheel, 92 f.; white cross-lined, 27, 29 f., 32-5, 37, 57, 68, 70, 74, 78, 89, 99, 109
Pottier, E., 55 f.
Ptaḥ, 5, 7
Ptaḥ-Sokar, 7
Pyramid Texts, 3 f., 7, 47, 85

Q

Quibell, J. E., 18 n. 1, 26 f., 82, 107 n. 5, 109, 114

R

Raʿḥotep, 8 f.
Randall-MacIver, D., 41, 86 n. 6
Ranke, H., 46 n. 1
Rēʿ, 8
Rē-Ḥarakhte, 5
Red crown, 37
Red Sea, 44, 50
Reisner, G. A., 62, 100 n. 4, 104, 115
Rekhmirēʿ, 10
River between mountains motif, 63, 66
Rusch, A., 4 n. 3, 6 n. 4

S

Saad, Z. Y., 61
Saḥurēʿ, 11, 47, 60
Saïs, 47
Saḳḳāra, 8, 10, 34, 62
Samarra, 65, 72, 116
Sandford, K. S., 19
Sargon I, 60
Scharff, A., 2, 5, 8 n. 3, 14, 30, 32, 35 n. 1, 64 f., 82, 93, 117 n. 4, 119
Schiaparelli, E., 6
Schmidt, E., 78 n. 2, 117
Scorpion king, 45, 60
Seal-cylinder; *see* Cylinder-seals
Se'bu, 11
Sébilian, 18 f.
Sequence-dating, 2, 40, 109
Serpent, 59, 62 f., 83, 85
Sēth, 4, 6 f., 27, 30, 33 f., 37, 46 f., 50; animal, 35, 37
Sethe, K., 3-6, 9 f., 31, 85 nn. 2, 3
Shahi-Tump, 53
Sheep, 23 f., 63
Shells, 24
Shiah, N., 7 n. 2
Sialk, 56, 67 f., 74, 76, 115 n. 7, 116-18
Silver, 42, 50
Sinai, 24, 42, 44, 51, 95
Sistan, 116
Siut, 10; *see also* Asyūṭ
Smith, S., 61, 74 n. 1, 83 n. 4
Snefru, 8
Sothis: calendar, 5; period, 5, 10
South Town, 27 f.
Speiser, E. A., 53, 103, 105, 110
Spindle-whorls, 27
Spiral, 74
Starkey, J. L., 41
Steindorff, G., 11, 13, 38 n. 2
Step Pyramid, 102
Stone vases, 24, 27, 29, 42, 45, 48, 52, 63, 86, 88, 98, 102-19; cylindrical, 29, 115; Sumerian, 75; with cord pattern, 34
Sumer, 69, 83
Susa, 53-6, 62 f., 65-70, 72, 85 f., 88, 91, 93, 95, 116, 118
Symbols, 11, 59 f., 83
Syria, 50, 53

T

Tarkhān, 62, 104
Tell Douweir, 59
Tell el-Yāhūdīya, 36 n. 8
Tell Halāf, 53, 103
Telloh, 90, 103, 113 f.
Tepe 'Alīābād, 116
Tepe Gawra, 56, 96, 103 f., 116
Tepe Giyān, 56, 67 n. 1, 75, 80, 118
Tepe Hissar, 116, 118
Teti Pyramid, 8
Thebais, 10
Thebes, 5, 7
This, 7
Thomas, H. H., 103 n. 4
Tjekhme 'Ali, 80
Tombs, 21, 23, 28, 37, 43, 48, 63, 66 f.
Toscanne, P., 59, 63
Town-wall, 43
Tree-worship (sacred tree), 33, 36, 46, 81
Turquoise, 24, 44, 51
Tutʿankhamūn, 42
Tuthmosis III, 31, 36

U

Ur, 39 n. 1, 48, 114
Uruk, 42, 48, 53 f., 60, 67 f., 73, 79, 89-95, 97, 103 f., 106-10, 115, 117 f.; *see also* Warka

V

Vaufrey, R., 19

W

Wadi Ḥammāmāt, 44, 46, 50, 78
Wainwright, G. A., 4 n. 1, 10 n. 6, 12, 37, 47, 106 n. 2
Warka, 39, 90 n. 1, 93, 106-8, 118; *see also* Uruk
Weill, R., 6 f.
Wepwawet, 10
Weserkaf, 8
Windscreen, 37
Winkler, H. A., 38 n. 1, 44
Woolley, Sir Leonard, 39, 56, 68
Wright, G. E., 41 n. 4, 42 n. 1, 95 n. 1

Y

Yarn, 23
Yezd, 116
Yorgan Tepe, 95, 97

Z

Z-sign, 12, 47, 72
Zyhlarz, 48 f., 78 n. 1

II. EGYPTIAN WORDS

'Iwnw, 4, 6
'Itrtj, 84
ʿnḏtj, 4
ʿḥʿ (snake), 84
Ẇnšt, 9
Wr(w) mꜣw, 7-9
Bꜣw, 8
Mr-ib, 8
Mry-Rʿ, 7
Nṯrj-r-ḫt, 6
Rḫyt, 7
Ḥꜣ, 47
Ḥm ntr, 7
Šw, 6
Šsꜣt-ḥtp, 8
Kꜣ-mnj, 8 f.
Kꜣ-nfr, 8
Ṯntj, 8
Ḏdw, 4
Ḏt, king, 62
Ḏt, "eternity," etc., 85

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B. N. U. STRASBOURG

1–4. Vase with fertility-goddess: Naḳāda, tb. 1449. **5, 6.** Vase with Hathor in the attitude of a fertility goddess: Ashmolean Museum, provenance unknown.
(*Scales in cm.*)

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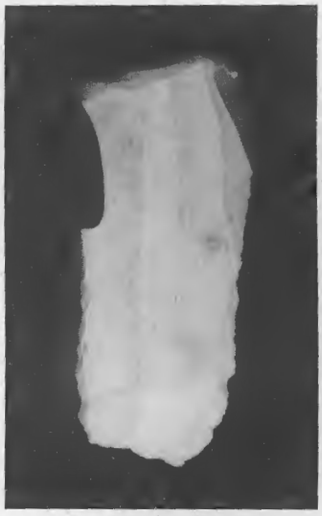
B. N. U. STRASBOURG

1. Spear-head: Merimda. After *Anz. Wien*, 3 (1932), pl. 6, b. **2.** Spear-head: Naḳāda, tb. 414. **3.** Ground and flaked axe: Naḳāda, town. **4–6.** Arrow-heads: Naḳāda, town. **7.** Sickle-stone or saw: Naḳāda, town. **8.** Sickle-stone: Koptos. **9.** Arrow-heads: Koptos. **10.** Hoe-shaped bifacial: Naḳāda, town.

(*Scales in cm.*)



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1. Burin: Naḳāda, tb. 1846. **2.** Resharpened, flaked axe: Naḳāda, town. **3, 4.** Chisel and keeled scraper on blades: Naḳāda, town. **5.** Flint blade with remains of crust: Naḳāda, tb. 1208. **6.** Leaf-shaped point, bifacial: Naḳāda, town. **7.** Red agate lunates: Naḳāda, tb. 836. **8, 9.** Bone harpoons: Naḳāda, tb. 1215 and town. **10.** Copper harpoon: Naḳāda, tb. 1808. **11, 12.** Alabaster and ivory figurines: Naḳāda, tb. 1329.

(*Scales in cm.*)

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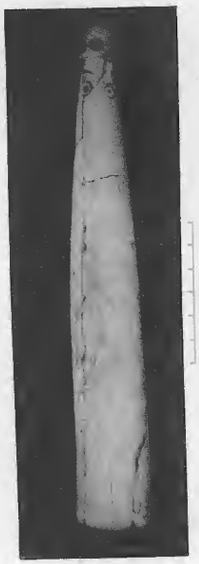

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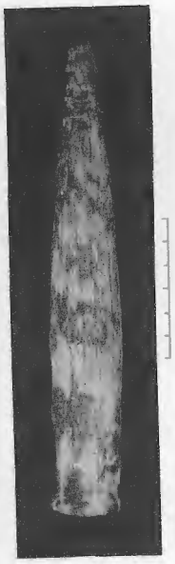

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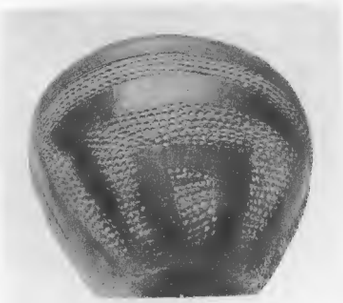

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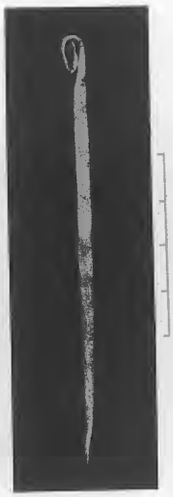

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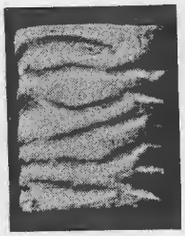

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H. 0·6 in.
Dm. 0·5 in.

11

B. N. U. STRASBOURG

1. Sherd of black-topped pot with burnished pattern: Naḳāda, town. **2, 3.** Female figure, buff clay with remains of red paint: Naḳāda, tb. 1611. **4, 5.** Pair of ivory tusks, one with inlaid shell eyes, hollow, one with incised lines round top, solid: Naḳāda, tb. 226. **6.** Incised pot, red engobe, herring-bone pattern: Naḳāda, tb. 1436. **7.** Polished red incised pot: Naḳāda, tb. 1401. **8.** Polished red pot with incised hippopotamus: Naḳāda, tb. 1416. **9.** Copper pin: Naḳāda, town. **10.** Cylinder-seal: Naḳāda, tb. 1863. After *Preh. Eg.*, pl. 9, 56. **11.** Pot painted red in the style of the white cross-lined ware: Naḳāda, tb. 273.

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B. N. U. STRASBOURG

1–3. Disk-shaped mace(?)-heads: Naḳāda, tbs. 234, 1417, 1443. **4.** Sherd with button foot; Naḳāda, town. **5.** Cylindrical alabaster vase: Naḳāda, tb. 1661. **6.** Decorated vase: Naḳāda, tb. 409. **7.** Basalt vase: Naḳāda, tb. 1676. **8.** Ivory vase: Naḳāda, tb. 1412. **9.** Bird-shaped stone vase: Naḳāda, tb. 89. (*Scales in cm.*)

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B. N. U. STRASBOURG

1. Rough pot decorated with finger-tip impressions: Naḳāda, tb. 191. **2.** Black-topped vase, foot painted white: Naḳāda, tb. 1465. **3.** White cross-lined pot with cross-hatched squares: Naḳāda, tb. 1497. **4, 5.** White cross-lined vase with river between mountain motif and animals: Naḳāda, tb. 1644. (*Scales in cm.*)

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B. N. U. STRASBOURG

1. Ivory pin in form of serpent: Naḳāda, tb. 1654. **2.** White cross-lined pot: Naḳāda, tb. 1443.
3, 4. Decorated pot: Naḳāda, tb. 173.
(*Scales in cm.*)

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B. I. U. STRASBOURG

1, 2. Decorated pot with snakes and harpooned crocodile: Naḳāda, tb. 193. **3–5.** Fragments of decorated pot with dancing demons: Naḳāda, tb. 60.
(*Scales in cm.*)

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B. N. U. STRASBOURG

1–3. Decorated vase with dancing women, tree, ships, and animals: Naḳāda, tb. 454.
(*Scales in cm.*)

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B. N. U. STRASBOURG

1. Bowl decorated with red streaks: Naḳāda, tb. 1103. **2.** Rippled bowl: Naḳāda, tb. 31. **3.** Bowl decorated with red streaks outside and inside: Naḳāda, tb. 114. **4.** Pot with incised necklace with "loose" end: Naḳāda, tb. 1361. **5.** Pot-stand, boat-shaped; prow with ram's head, ram's legs in relief at the sides: Naḳāda, tb. 115.

(*Scales in cm.*)

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1. Basalt vase with conical foot and lug-handles: Naḳāda, tb. 1503. **2.** Hard stone vase with conical foot: Warka, stratum IIIa of the Ziggurat. After *Kleinfunde*, pl. 21. **3.** Basalt vase with conical foot: Hierakonpolis, prehistoric cemetery. After *Hierakonpolis*, II, pl. 64. **4.** Alabaster beaker: Naḳāda, tb. 231. **5.** Stone double vase: Hierakonpolis, prehistoric cemetery. After *Hierakonpolis*, II, pl. 64. **6.** Alabaster (?) beaker: Sialk III. After *Sialk*, pl. 23, 7.

(*Scales in cm.*)

D
30 317

BAUMGARTE

CULTURES
OF
PREHISTOR
EGYPT